150 Births.

SECTION V.

VITAL STATISTICS.

NOTE.—The rates quoted throughout this Section for the years 1904 to 1914 have been calculated in accordance with the corrected populations as determined by the results of the Census of 1911.

§ 1. Births.

. 1. Male and Female Births, 1904 to 1914.—The total number of male and female births registered in the Commonwealth during the years 1904 to 1914 is as shewn in the two tables hereunder:—

TOTAL MALE BIRTHS, COMMONWEALTH, 1904 to 1914.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W Aust.	Tas.	i	Federal Territory.	C'wealth.
1904 1905 1906 1907 1908 1909 1910 1911 1912	21,066 21,604	15,313 15,523 15,716 15,986 16,071 16,096 16,412 16,934 18,226 18,434	7,134 6,978 7,280 7,451 7,677 7,954 8,260 8,703 9,576	4,665 4,491 4,605 4,675 4,924 5,224 5,395 5,615 6,168 6,505	3,666 3,862 4,043 3,962 3,993 3,884 3,855 4,124 4,469 4,710	2,702 2,812 2,792 2,797 2,818 2,849 2,888 2,716 3,016 3,071	21 23 12 14 25 11 28 16 23 27	(a) 17 20 22	53,358 53,895 55,514 56,489 57,113 58,482 60,206 62,508 68,022 69,434
1914	27,452	18,545	10,120	6,668	4,663	3,094	31	31	70,604

(a) Part of New South Wales prior to 1911.

TOTAL FEMALE BIRTHS, COMMONWEALTH, 1904 to 1914.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Federal Territory.	C'wealth
1004	10.010	14.450	6.040	4.495	0.510	0.500	10		50.555
1904	18,810	14,450	6,948	4,435	3,510	2,590	12	•••	50,755
1905	19,295	14,584	6,648	4,341	3,720	2,445	13	•••	51,046
1906	19,882	15,128	6,739	4,316	3,757	2,541	13		52,376
1907	20,597	15,379	7,089	4,536	3,750	2,494	13		53,858
1908	20,853	15,026	7,153	4,832	3,762	2,797	9		54,432
1909	21,318	15,448	7,598	4,840	3,718	2,651	16]	55,589
1910	22,076	15,025	7,909	5,145	3,730	2,698	12	•••	56,595
1911	23,154	16,092	8,281	5,442	3,967	2,721	15	' (a) 13	59,685
1912	25,337	17,570	9,162	5,911	4,220	2,837	10	19	65,066
1913	25,562	17,536	9,690	6,122	4,508	2,815	25	22	66,280
1914	26,189	17,677	9,762	6,236	4,541	2,923	27	24	67,379
1914	26,189	17,677	9,762	6,236	4,541	2,923	27	24	67,3

(a) Part of New South Wales prior to 1911. . .

2. Total Births, 1904 to 1914.—While the total number of births for the Commonwealth was higher in 1914 than in any of the preceding ten years, the following table of particulars discloses also the fact that the excess of births in 1914 over those in 1904 was very unequally distributed between the States:—

TOTAL BIRTHS, COMMONWEALTH, 1904 to 1914.

Yea	r.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed'l Terr.	C'wealth.
1904		38,667	29,763	14,082	9,100	7,176	5,292	33	•••	104,113
1905		39,501	30,107	13,626	8,832	7,582	5,257	36		104,941
1906		40,948	30,844	14,019	8,921	7,800	5,333	25		107,890
1907		42,201	31,365	14,540	9,211	7,712	5,291	27		110,347
1908		42,458	31,097	14,830	9,756	7,755	5,615	34		111,545
1909		43,782	31,544	15,552	10,064	7,602	5,500	27		114,071
1910		45,444	31,437	16,169	10,540	7,585	5,586	40		116,801
1911		47,537	33,026	16,984	11,057	8,091	5,437	31	(a) 30	122,193
1912		51,861	35,796	18,738	12,079	8,689	5,853	33	39	133,088
1913		52,186	35,970	19,731	12,627	9,218	5,886	52	44	135,714
1914		53,641	36,222	19,882	12,904	9,204	6,017	58	55	137,983
		,	1	,			,			1

(a) Part of New South Wales prior to 1911.

3. Birth Rates, 1904 to 1914.—(i.) Crude Birth Rate. The law relating to Maternity Allowances which came into force on 10th October, 1912, had the effect of materially diminishing the period between the dates of birth and the dates of registration, so that probably 6000 births were registered during the last three months of the year which, under ordinary circumstances, would not have been registered before the beginning of 1913. The increase shewn by the 1912 birth rate over the rate for 1911 is, therefore, to some extent fictitious, and the true birth rate for the whole Commonwealth in 1912 was more probably about 27.42 per thousand than 28.65 as shewn in the subjoined table. If due allowance be made for this fact it may be stated that the birth rate for the Commonwealth was not only higher in 1913 than in any of the preceding nine years, but that the increase which began with the year 1909, was maintained to the end of 1913, while 1914 shews a slight decrease due to a falling off in the rates for Victoria, Queensland, and Western Australia. The very high masculinity of the population accounts for the low birth rate experienced in the Northern Territory:—

CRUDE BIRTH RATE (a), COMMONWEALTH, 1904 to 1914.

										<u> </u>	
	Year.		N.S.W.	Vie.	Qld.	S.A.	W.A.	Tas.	North. Terr.	Federal Territory.	Cwlth
1904			26.85	24.74	26.99	25.49	30.67	28.92	7.82		26.41
1905			26.85	24.96	25.76	24.54	30.74	28.50	8.72		26.23
1906	•••		27.21	25.41	26.15	24.57	30.66	28.94	6.29		26.57
1907			27.34	25.59	26.79	25.05	30.18	28.63	7.06		26.76
1908	•••		26.99	25.07	26.79	25.81	30.08	29.95	9.30		26.59
1909	•••		27.40	25.01	27.29	25.91	28.87	28.91	7.63		26.69
1910	•••		27.83	24.51	27.33	26.50	27.99	29,25	11.75		26.73
1911	•••		28.60	25.01	27.65	26.89	28.21	28.57	9.34	(c)16.85	27.21
1912	•••		29.86	26.39	29.67	28.65	28.83	30.53	9.82	19.15	28.65
1913			28.86	25.82	30.24	29.12	29.36	30.03	14.21	17.97	28.25
1914		•••	28.96	25.45	29.46	29.33	28.45	30.33	15.46	20.79	28.05
							<u> </u>	-	ļ	·	
Density	(b) (No.	. per					1	l	İ	j	
squar	e mile)	· · · ·	6.02	16.28	1.01	1.16	0.33	7.68	0.008	2.15	1.66
•					ŀ	!		1		j	1

(a) Number of births per 1,000 of the mean annual population. (b) On 31st December, 1914. (c) Part of New South Wales prior to 1911.

The population density of each State and of the Commonwealth has been given for the purpose of considering the influence, if any, of concentration of population on birth rate, in connection with the disparities of the rate in different parts of Australia.

(ii.) Objections to Crude Birth Rate. The figures just given represent the "crude birth rate," i.e., the number of births per thousand of mean annual population. The number of births per thousand of the female population of child-bearing ages, i.e., from 15 to 45, furnishes a more significant rate. This calculation has been made for the four last Census periods, and covers in each case the Census year together with the year immediately preceding and the year immediately following. The following results have

been obtained for the four Census periods:—Total births per 1000 women (married and unmarried) of ages 15 to 45:—Years 1880-82, 169.69; years 1890-92, 158.81; years 1900-02, 117.26; years 1910-12, 117.22. Nuptial births per 1000 married women of ages 15 to 45:—Years 1880-82, 320.96; years 1890-92, 332.03; years 1900-02, 235.84; years 1910-12, 236.06.

4. Birth Rates of Various Countries.—A comparison with other countries shews that the Australian States occupy a very low position, which is, however, fortunately counterbalanced by a still lower position in regard to their death rates, as will be seen from the table hereinafter in the section dealing with "Deaths."

CRUDE	BIRTH	RATE	(a)	0F	VARIOUS	COUNTRIES.

Country.		Year.	Rate.	Country.		Year.	Rate.
Russia, European		1909	44.0	Western Australia		1914	28.5
Rumania		1913	42.1	German Empire	•••	1912	28.3
Bulgaria		1910	41.7	Commonwealth		1914	28.1
Chile		1912	38.7	Netherlands		1913	28.1
Ceylon		1913	38.6	New Zealand		1914	26.0
Serbia		1912	38.0	Denmark		1913	25.6
Hungary		1912	36.3	Victoria		1914	25.5
Jamaica		1913	35.3	Scotland		1913	25.5
Japan		1910	33.9	Norway		1913	25.2
Italy	{	1912	32.4	Switzerland		1912	24.1
Austria		1912	31.3	Ontario (Canada)		1913	24.0
Spain		1913	30.4	United Kingdom		1913	24.0
Tasmania		1914	30.3	England and Wales		1913	23.9
Queensland		1914	29.5	Sweden		1913	23.1
South Australia		1914	29.3	Ireland		1913	22.8
Finland		1912	29.1	Belgium		1912	22.6
New South Wales		1914	29.0	France		1913	19.0
Prussia		1912	28.9				

⁽a) Number of births per 1000 of the mean population.

5. Masculinity at Birth.—The masculinity of births, i.e., the number of males per 100 females, registered during the last eleven years in the several States of the Commonwealth has, apart from the Northern Territory and the Federal Territory, the figures for which are useless for comparative purposes on account of the smallness of the returns on which they are based, varied from 99.82 in Tasmania in 1911 to 115.01 in Tasmania in 1905. The following table, which gives the values for the States and Commonwealth for 1904 to 1914, shews the remarkable fact that for the Commonwealth there was a steady increase of masculinity from 1904 to 1906, with a sharp decrease in 1907, a further increase in 1908, 1909, 1910, a rapid decrease in 1911 and 1912, with slight increases in 1913 and 1914:—

MASCULINITY (a) OF BIRTHS REGISTERED, COMMONWEALTH, 1904 to 1914.

Year.		N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.		C'wealth.
					~					
1904		105.57	105.97	102.68	105.19	104.44	104.32	175.00		105.13
1905		104.72	106.44	104.96	103.46	103.82	115.01	176.92		105.58
1906		105.96	103.89	108.03	106.70	107.61	109.88	92.31		105.99
1907		104.89	103.95	105.11	103.06	105.65	112.15	107.69		104.89
1908		103.61	106.95	107.33	101.90	106.14	100.75	277.78		104.93
1909		105.38	104.19	104.69	107.93	104.46	107.47	68.75		105.20
1910		105.85	109.23	104.44	104.86	103.35	107.04	233.33		106.38
1911		105.31	105.23	105.10	103.18	103.96	99.82	106.67	(b)130.77	104.73
1912		104.68	103.73	104.52	104.35	105.90	106.31	230.00	105.26	104.54
1913		104.15	105.12	103.62	106.26	104.48	109.09	108.00	100.00	104.76
1914		104.82	104.91	103.67	106.93	102.69	105.85	114.81	129.17	104.79
						1		İ		

⁽a) Number of males to each 100 females. (b) Part of New South Wales prior to 1911.

There is ordinarily a very small difference between the masculinity of nuptial and ex-nuptial births. Thus, according to Bodio, whose figures are quoted in the following table, for the period about 1887-1891, the masculinity ranged from 108.3 to 103.6, and from 107.9 to 101.6 for total and ex-nuptial births respectively.

MASCULINITY OF BIRTHS IN VARIOUS COUNTRIES.

			inity of hs. (a)		Masculinity of Births. (a)		
Country.		All Live Births.	Ex-nuptial Live Births.	Country.	 All Live Births.	Ex-nuptial Live Births.	
Spain Rumania Portugal Austria Italy Norway Ireland Netherlands Scotland		108.3 107.7 107.5 105.8 105.8 105.8 105.5 105.5	• 107.9 103.4 106.4 105.5 104.4 105.9 104.8 104.7 105.9	German Empire Finland Hungary Sweden Denmark Serbia France Belgium Switzerland	 105.2 105.0 105.0 105.0 104.8 104.7 104.6 104.5	104.7 105.2 102.9 104.3 105.0 103.5 102.9 102.2 101.6	
Russia, European	•••	105.4	104.5	England	 103.6	104.4	

(a) Number of males to each 100 females.

The masculinity of ex-nuptial births in the Commonwealth was as follows:-

MASCULINITY (a) OF EX-NUPTIAL BIRTHS REGISTERED, COMMONWEALTH. 1904 TO 1914.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Territ'y.	Federal Territ'y.	C'wlth.
1904	100.80	108.68	95.77	83.50	107.28	93.71	200.00		100.98
1905	102.50	102.52	105.63	96.94	98.75	102.80			102.44
1906	103.10	102.23	104.17	116.97	118.13	124.82	100.00		105.44
1907	104.91	105.59	100.90	113.56	115.94	100.00			105.11
1908	108.60	105.38	96.83	96.82	89.33	108.51	150.00		104.00
1909	105.46	102.16	103.90	105.37	129.14	129.01	66.67		106.25
1910	104.96	103.59	100.39	101.33	89.70	106.94	200.00		103.05
1911	101.73	106.61	97.94	106.19	108.05	105.67	28.57	(b)	103.10
1912	109.83	95.98	97.30	120.85	124.40	82.69	200.00		104.05
1913	101.52	105.79	106.39	110.36	110.36	145.97	133.33	100.00	106.21
1914	109.30	108.16	104.63	110.97	107.49	101.70	133.33		107.75
		i	l	ļ		1			

⁽a) Number of males to each 100 females. (b) Part of New South Wales prior to 1911.

It is curious to note that while, so far as the total births are concerned, there has always been an excess of male births over female births (excepting Tasmania in 1911), this has not been the case in regard to ex-nuptial births, where in South Australia in 1904 the masculinity was only 33.50. On the other hand it rose as high as 145.97 in Tasmania in 1913. Little weight, however, can be attached to those results on account of the small totals on which they are based, and for the same reason the figures for the Northern Territory are not taken into consideration.

6. Ex-nuptiality of Births.—The total ex-nuptial births rose rapidly from 1904 to 1908 and remained almost stationary till 1909, when the number again decreased, so that the year 1910 shewed the lowest number recorded since 1906. During the three years 1911-13 the numbers shew a considerable increase, with another decrease in 1914. (See the table on the following page).

It is, of course, possible that the number of ex-nuptial births is somewhat understated, owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

TOTAL EX-NUPTIAL BIRTHS REGISTERED IN THE COMMONWEALTH, 1904 to 1914.

Y	ear.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed'l Terr.	C'wealth.
1004		OFF	1 505	071	004	010	900	3		6.401
1904	•••	2,755	1,707	971	364	313	308	1 3		6,421
1905	•••	2,912	1,689	950	385	318	290	1		6,545
1906	•••	2,882	1,721	1,076	356	373	308	2		6,718
1907	•••	2,920	1,764	1,117	378	298	306			6,783
1908	•••	2,887	1,793	1,118	433	337	294	5		6,867
1909		2,821	1,870	1,097	421	346	300	5		6,860
1910		2,853	1,759	1.034	455	313	298	9		6,721
1911		2,921	1,969	1,057	466	362	290	9	(a)	7,074
1912	•••	2,904	2,046	1,170	572	377	285	3	1	7,358
1913	•••	2,793	2,169	1,228	528	406	305	7	2	7,438
1914		2,836	2,015	1,148	500	388	355	21		7,263
		1						1		İ

(a) Part of New South Wales prior to 1911.

(i.) Rate of Ex-nuptiality, 1904 to 1914. The rate of ex-nuptiality, i.e., the percentage of ex-nuptial to total births, shewed a slight increase from 1904 to 1905, but has been gradually decreasing during the last nine years, as the subjoined table shews:—

PERCENTAGE OF EX-NUPTIAL ON TOTAL BIRTHS, COMMONWEALTH, 1904 to 1914.

Y	ear.	n.s.w.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed'l Terr.	C'wealth.
		%	%	%	%	%	%	%		%
1904	•••	7.12	5.74	6.90	4.00	4.36	5.82	9.09		6.17
1905	•••	7.37	5.61	6.97	4.36	4.19	5.52	2.78		6.24
1906		7.04	5.58	7.68	3.99	4.78	5.78	8.00		6.23
1907	: •••	6.92	5.62	7.68	4.10	3.86	5.78			6.15
1908	•••	6.80	5.77	7.54	4.44	4.35	5.24	14.71		6.16
1909		6.44	5.94	7.05	4.18	3.95	5.45	18.52		6.01
1910	•••	6.28	5.60	6.39	4.32	4.13	5.33	22.50		5.75
1911		6.14	5.96	6.22	4.21	4.47	5.33	29.03	(a)	5.79
1912		5.60	5.72	6.24	4.74	4.34	4.87	9.09	2.56	5.53
1913	•••	5.35	6.03	6.22	4.18	4.40	5.18	13.46	4.55	5.48
1914		5.29	5.56	5.77	3.87	4.22	5.90	36.21		5.26
		1		1	ļ				1	

(a) Part of New South Wales prior to 1911.

A comparison of greater significance is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45. The calculation has been made for the last four Census periods, and covers in each case the Census year, together with the year immediately preceding and the year immediately following. The number of ex-nuptial births per 1000 unmarried women of ages 15 to 45 has been found to be as follows:—Years 1880-82, 14.49; years 1890-92, 15.93; years 1900-02, 13.30; years 1910-12, 12.53.

(ii.) Comparison of Rates. Since the rate of ex-nuptiality might appear to increase by the mere decrease in the general birth rate, the following table has been prepared:—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES (a), COMMONWEALTH, 1904 TO 1914.

Births.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.
Ex-nuptial Nuptial										1.55 26.70	
Total	26.41	26.23	26.57	26.76	26.59	26.69	26.73	27.21	28.65	28.25	28.05

(a) Number of births per 1000 of mean population.

(iii.) Ex-nuptiality—Rates of Various Countries. The rate for the Commonwealth is higher than that for England and Wales, slightly lower than that for Scotland, and considerably below the rates for many of the countries for which returns are available, as the table hereunder shews. The rates shewn below refer to three triennial periods, 1880-2, 1890-2, and 1900-2, and are given per thousand of the unmarried and widowed female population:—

EX-NUPTIAL BIRTHS PER THOUSAND OF UNMARRIED AND WIDOWED FEMALE POPULATION IN VARIOUS COUNTRIES.

Country.			Rate.				Rate.	
		1880-2.	1890-2.	1900-2.	Country .	1880-2.	1890-2.	1
		_% _	-%	-%		 -%_	% -	%_
Ireland		4.4	3.9	3.8	Belgium	 20.0	20.6	
Netherlands		9.7	9.0	6.8	France	 17.6	17.7	19.1
England and Wales		14.1	10.5	8.5	Italy	 25.4		19.4
New Zealand		13.4	9.0	8.9	Russia	 25.8	25.1	23.7
Switzerland		10.8	10.0	9.8	Denmark	 26.9	24.5	24.2
Commonwealth	•••	14.5	15.9	13.3	Sweden	 22.6	22.9	24.3
Scotland		21.4	17.1	13.4	German Empire	 29.6	28.7	27.4
Spain		16.0	17.5	15.5	Austria	 43.4	42.7	40.1
Norway		19.7	16.9	17.2	,			

It may be added that the general circumstances in Australia with regard to opportunity for marriage are probably relatively easy as compared with those in older established countries.

- 7. Multiple Births.—Among the total number of 137,983 births registered in the Commonwealth in 1914 there were 135,170 single births, 2780 twins, and 33 triplets. The number of cases of twins was 1390, and the number of cases of triplets 11. The total number of mothers was, therefore, 136,571, the proportion of mothers of twins being one in every 98, and of mothers of triplets one in every 12,415 of total mothers. The proportion of multiple births is a fairly constant one. In 1907 they numbered 1043 out of a total of 109,306, or one in 105; in 1908, 1065, or one in 104; in 1909, 1142, or one in 99; in 1910, 1189, or one in 99; and in 1911, 1236, or one in 98; in 1912, 1350, or one in 98; in 1913, 1369, or one in 99; and in 1914, 1401, or one in 97. The number of cases of triplets is so small that a slight alteration in the total will completely change the proportion. Thus, there were 14 cases in 1907, or one in 7872 of total mothers, as compared with one in 18,415 in 1908; one in 8066 in 1909, one in 8893 in 1910, one in 8639 in 1911, one in 8233 in 1912, one in 16,793 in 1913, and one in 12,415 in 1914.
- 8. Ages of Parents.—The relative ages of the parents of children registered in 1914 have been tabulated separately for male and female births, twins and triplets being distinguished from single births, and are shewn for single ages and for every State in "Bulletin of Population and Vital Statistics, No. 32; Commonwealth Demography, 1914 and previous years." In the present work the exigencies of space allow only the insertion of corresponding tables shewing the relative ages of parents in groups of five years. It will be seen from the tables that the largest number of both single and twin births occurred where the ages of both father and mother were between 25 and 29. The largest number of mothers was found at ages 25 to 29.

0

(a) AGES OF PARENTS IN CASES OF SINGLE BIRTHS, COMMONWEALTH, 1914.

Ages of Fathers.	Total Chil-				Ages	of Mot	hers.			-
nges of Falliers.	dren.	Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and Upwds.	Not Stated.
Under Males Females Total	451	2 1 3	153 160 313	60 63 123	5 6 11	1				
20 to 24 { Males Females Total	14,254	4 2 6	1,345 1,260 2,605	4,738 4,572 9,310	1,098 954 2,052	111 121 232	20 21 41	4 2 6		2 2
25 to 29 { Males Females Total Males	17,406 16,644 34,050 16,196	 1	783 645 1,428 191	6,954 6,563 13,517 2,593	7,980 7,797 15,777 6,688	1,489 1,450 2,939 5,667	176 163 339 950	20 22 42 102	1 1 2 1	3 3 6 3 2
30 to 34 Females Total		1	184 375 52	2,537 5,130 768	6,373 13,061 2,750	5,343 11,010 4,346	935 1,885 3,225	68 170 348	7 8 8	15
35 to 39 Females (Total	10,970 22,468 7,245		47 99 16	709 1,477 222	2,592 5,342 926	4,161 8,507 2,082	3,130 6,355 2,716	322 670 1,240	6 14 40	1 3 4 3
40 to 44 Females Total			13 29 6	238 460 73	839 1,765 313	1,995 4,077 739	2,553 5,269 1,315	1,281 2,521 1,056	30 70 160	4 7
45 to 49 Females Total			5 11 3	93 166 35	317 630 120	707 1,446 220	1,304 2,619 433	1,047 2,103 476	130 290 88	
50 to 54 { Females Total (Males			5 8	23 58 6	109 229 25	230 450 59	383 816 135	458 934 116	90 178 31	
55 to 59 Females Total	346 718 108			5 11 3	34 59 10	58 117 24	119 254 35	110 226 31	20 51 5	
60 to 64 Females (Total 65 and (Males	98 206 53			1 4 3	11 21 8	21 45 10	31 66 15	30 61 13	9	
up- Females wards Total	43 96 6			1 4 2	5 13	9 19 1	16 31 1	10 23	2 6 2	
stated Total				2 4	4	3 4	1 2		2	
Nuptial Males chil- dren. Females Total		7 3 10	2,549 2,319 4,868	15,457 14,807 30,264	19,923 19,041 38,964	14,749 14,098 28,847	9,021 8,656 17,677	3,406 3,350 6,756	340 290 630	10 14 24
nuptial Hales chil- dren Total		15 8 23	1,022 917 1,939	1,433 1,356 2,789	642 567 1,209	326 314 640	187 180 367	61 65 126	6 10 16	13 8 21
Total (Males children (Total	69,167 66,003 135,170	22 11 33	3,571 3,236 6,807	16,890 16,163 33,053	20,565 19,608 40,173	15,075 14,412 29,487	9,208 8,836 18,044	3,467 3,415 6,882	346 300 646	23 22 45

(b) AGES OF PARENTS OF TWINS, COMMONWEALTH, 1914.

		-	Total			1	Ages of I	Mothers.			
Ages	of Fathers.		Chil- dren.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 & up- wards.	
	(Males		6	1	5					·	
Jnder 20	Females	•••	2	1	1						
	Total]	8 102	2 11	6 67	23	···-,			•	
0.4 - 0.4	Males Females	***	110	117	67	31	3	2		!	
0 to 24	Total	•••	212	18	134	54	4	2		,	
	(Males		272	2	93	137	34	5	···,		
5 to 29	Females		261	2	73	128	48	7	1	١	2
J 60 20	Total		533	4	166	26€	82	12	2		2
	(Males		336	3	35	118	156	22	2 2		
0 to 34	Females		313	7	35	115	126	26	2	2	
	Total		649	10	70	233	282	48	4	1 2	
	(Males		326		10	66	140	103	7	l	
5 to 39	Females		277		12	40	116	100	9	1	l
	Total		603		22	106	256	203	16		
	(Males		189		7	20	41	87	34		
0 to 44	Females		188	•••	3	18	45	88	34		
	' Total		377		10	38	86	175	68		

(b) AGES OF PARENTS OF TWINS, COMMONWEALTH, 1914—Continued.

			Total			A	lges of I	fothers.			
Ages o	of Fathers.		Chil- dren.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 & up- wards.	
45 to 49	(Males Females Total		88 92 180		 4 4	1 11 12	18 12 30	41 33 74	26 30 56	2 2 4	
50 to 54	Males Females Total Males	:::	31 33 64 9	 	 	3 3 6	14 10 24 1	6 6 12 4	8 10 18 3	 4 4 1	
55 to 59	Females Total (Males		8 17 3				3 4 2	4 8 1	3	1 2 	
60 to 64 65 and up- wards	Total Males Females		2 5 1 1	 	 		 2 1 1	1 2 	1	 	
	(Males	***	1.363	17	917	368	408	269	81	3	
Nuptial children Ex-nuptial	Females Total (Males		1,287 2,650 61	17 34 10	195 412 20	346 714 16	364 772 8	267 536 7	87 168	9 12 	2 2
children	Females Total		67 128	3 13	25 45	14 30	22 30	3 10			
Total children	Males Females Total		1,424 1,354 2,778	27 20 47	237 220 4 57	384 360 744	416 386 802	276 270 54 6	81 87 168	3 9 12	 2 2

(c) AGES OF PARENTS OF TRIPLETS. COMMONWEALTH, 1914.

	A	Fathers.		Total		Ages of	Mothers.	
	Ages Of	rainers.		Children.	20 to 24.	25 to 29.	30 to 34.	35 to 39.
25 to 29	•••	Males Females Total		1 2 3		1 2 3		
30 to 34	•••	$\begin{cases} \mathbf{Males} & \dots \\ \mathbf{Females} \\ \mathbf{Total} & \dots \end{cases}$:::	3 5 7 12	3 3 6	 	1 2 3	1 2 3
35 to 39	•••	{ Males Females Total	:::	···				
40 to 44		$\begin{cases} \mathbf{Males} & \\ \mathbf{Females} \\ \mathbf{Total} & \end{cases}$:::	1 5 6			 3 3	1 2 3
45 to 49		{ Males Females Total	:::	3 3 6		3 3	 	 3 3
50 to 54		{ Males Females Total		•••	 	 	 	•••
55 to 59	•••	{ Males { Females Total		 3	 		·	3 3
Nuptial ch	ildren .	Males Females Total		13 17 30 3	3 3 6	4 2 6	1 5 6	5 7 12
Ex-nuptial	children	Males Females Total		3	::: :::			3 3
Total c	hildren .	Males Females Total	:::	16 17 33	3 3 6	4 2 6	1 5 6	8 7 15

No conclusions can, of course, be drawn from one year's figures as to variations in the masculinity of the births at different ages of the parents, but so far as the figures go they indicate a few particulars which may be mentioned, viz.: In cases where the father is older than the mother the masculinity has a tendency to be above the average,

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while in cases where both parents belong to the same age group or where the father is younger than the mother the masculinity is rather below the average. It is also below the average in cases where the father, or both father and mother, are under 25; and it is above the average where the mother alone is under 25.

9. Birthplaces of Parents.—The relative birthplaces of the parents of children whose births were registered during the year 1914 will be found tabulated in the Bulletin before-mentioned. A summary of the results of the tabulation is here given:—

BIRTHPLACES OF PARENTS OF CHILDREN, COMMONWEALTH, 1914.

Distribute]	fathers.		Mothe C	rs of Nu hildren.	ptial	Mother	s of Ex-r Children	uptial
Birthplaces.	Single Births.	Twins.	Trip- lets.	Single Births.	Twins.	Trip- lets.	Single Births.	Twins.	Trip- lets.
AUSTRALASIA			!						
Commonwealth of									
Australia—									
N. South Wales	38,887	358	2	40 004	396	2	0 599	32	
Victoria		370	1	42,294	363	2	2,533	1	1
	33,611 11,275	100	1	32,732	129	2	1,913	14 8	•••
Queensland South Australia	12,949	138	2	13,925 13,155	149	2	961	1	•••
Western Australia	1,538	17			26	1	556	1	•••
Tasmania	5,687	47	2	2,054	48	2	136 402		•••
North. Territory	11	1		5,928		z		-	•••
			•••	20		•••	2		•••
New Zealand	1,396	9	•••	1,227	12	•••	75		•••
EUROPE	10 455	105		0.700	101		00-		
England	13,477	185	1	9,792	121	1	335	2	•••
Wales	352	5	•••	288	1	•••	11		•••
Scotland	3,103	31	•••	2,337	41	•••	68		•••
Ireland	1,945	22	1	1,312	21	•••	57	1	
Isle of Man	24	• • • •	•••	17	•••	•••	2		•••
Other European Bri-			,	_		1		!	
$\operatorname{tish} \operatorname{Possessions} \dots$	39	•••	•••	18					••-
Austria-Hungary	127		•••	75			3		•••
Belgium	9		•••	2					
Denmark	167	4	•••	64	1		2		• • •
France	64	•••		39	1	•••	3		
Germany	957	4	. 1	454	3		10		•••
Greece	63	2		37	1				
Italy	343	5		233	3		3		
Netherlands	54	1		27			1		
Norway	100	1		27			1		
Portugal	3					١			l
Russia	267	4		177	1		2		
Spain	35			19			1		
Sweden	186	3		21	1		1		
Switzerland	47	1		20		١	l		
Other European						İ	1		
Countries	51			18	1		1		
ASIA—							1		
British India	153	4		80			1	l	
Ceylon	19	1		8	1		1		
Hong Kong	2		l	2			·		
Straits Settlements	8	1		. 5					
Other Asiatic British		_			'''			'''	
Possessions	2	l				١	İ	1	ł
4.6.3	6		1]			
	2			''' ₁				• • • •	
	161	" 1	•••	48	•••		2	•••	
	25	-	•••	12			2		
Japan	6			12	•••		2	••••	
Java	5		•••		•••	•••		•••	•••
Philippine Islands	100				•••	•••		•••	•••
Syria	100	1		86	•••	•••	1		•••
Other Asiatic Coun-	12	1		11	,	Į	1		
tries	15	'	<u> </u>	11	1	1	1		1

BIRTHPLACES OF PARENTS OF CHILDREN-Continued.

District of	1	Fathers.		Mothe	ers of Nu hildren	ptial		s of Ex Children	
Birthplace.	Single Births.	Twins.	Trip- lets.	Single Births.	Twins.	Trip- lets.	Single Births.	Twins.	Trip- lets.
AFRICA-				1					
Cape of Good Hope	13			8			l		
Mauritius	14			8	1		1		
Natal	7			2	. ~				•••
S. Africa (undefined)		3	· · · · · ·	95		•••	4	· · · ·	•••
Other African Brit-	,0		•••		("' '	• • • • • •	· -	•••	***:
ish Possessions	1	1		1			}		٠ .
Egypt	7		ľ	5		•••			•••
Other African Coun-	•					•••		•••	
tries	5			4	l · .				
, aries	,		•••	1		•••		•••	14117
AMERICA—		,] .	.			, ,	,
Barbados	2				•••		•••	•••	
Canada	. 87	2		29	1	•••	2	1	***
Jamaica	2					•••		•••	•••
Newfoundland	2	•••	•••	1		• • • •		•••	•-•
Other American		ł	,		(
British Pos	1	1		2]		•••	•••	•••
Argentine Republic	4		•	2				•••	•••
Brazil	2	1						•••	
Chile	5			1			1	•••	
Mexico	2	[1	•••	•••
Peru	1							•••	. 100
United States of			İ						'
America	255	5		130			2		
Other American		1 .		1			1		
Countries	47	1		24		•••		•••	
POLYNESIA-				'		•)		: .
Fiji	31			24			2		
Friendly Islands		1							•••
Papua				2					•••
Other Polynesian	•••		••••	- 1	111				•••
British Pos	4			2	1		1		
New Caledonia	10			15	1		2		
New Hebrides	3			1					••••
Samoa	2		• • • •	1		•••			•••
Other Polynesian	4		•••			•••		•••	
Islands	7			1		•••			• • • •
South Sea Islands									,
(so described)	17		•••	2			1	· 1	
At Sea	125		•••	77	5	•••	2		
Inspecified	23	1	•••	39	2	•••	25		•••
Į				<u> </u>					
Total	128,040	1,330	10	128,040	1,330	10	7.130	65	ì
,		' i		1 1			1 1	ì	

^{10.} Occupations of Fathers.—A summary of the occupations of the fathers of all nuptial children, whose births were registered in 1914, will be found in the following table. The figures include all the States and Territories of the Commonwealth:—

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OCCUPATIONS OF FATHERS OF ALL NUPTIAL CHILDREN, COMMONWEALTH, 1914.

Occupations.		Number of Fathers.	Occupations.	Number of Fathers.
CLASS I.—PROFESSIONAL.			Leather, Raw Materials	29
General Government	••••	701	Wool and Tallow	92
Local Government	•••	172	Hay, Corn, etc	185
Defence	•••		Other Vegetable Matter, n.e.i	172
Law and Order	•••	1,188	Wood and Coal	185
Religion	•••	407	Stone, Clay, and Glass	20
Charities	•••	5	Gold, Silver, and Precious Stones	10
Health	•••	982	Ironmongery	234
Literature	••••	179	Merchants, Importers	540
Science	•••	98	Shopkeepers and Assistants	1,282
Civil Engineering, Architecture		000	Dealers and Hawkers	396
and Surveying	•••	386	Agents and Brokers	637
Education	••••	815	Clerks, Bookkeepers, etc	3,421
Fine Arts	••••	149	Commercial Travellers, Salesmen	1,594
Music		170	Others engaged in Commercial	4 0 4 0
Amusements		514	Pursuits	1,046
m + 1.Th - f - free - f	į	0.141	Speculators on Chance Events	47
Total Professional	•••	6,141	Storage	11
CLASS II.—DOMESTIC.		ľ	Total Commercial	17,332
Hotelkeepers and Assistants		883		
Others engaged in providing boa	rd		CLASS IV.—TRANSPORT AND	
and lodging		322	COMMUNICATION.	
House Servants		206	Railway Traffic	4,917
Coachmen and Grooms	••••	258	Tramway Traffic Road Traffic	1,271
Hairdressers		678	Road Traffic	6,142
Laundrymen		69	Sea and River Traffic	1,809
Others engaged in domestic oc	cu-	1	Postal Service	538
pations		302	:	662
Total Domestic		2,718	Messengers, etc	8
]		Total Transport & Communication	15,347
CLASS III.—COMMERCIAL.	1			
Banking and Finance		461	CLASS V.—INDUSTRIAL.	
Insurance and Valuation	••••	501	Books and Publications	1,042
Landed and House Property	.:-	151	Musical Instruments	63
Property Rights not elsewhere cl		4	Prints, Pictures and Art Materials	92
Books, Publications, Advertisin	g	177	Ornaments and Small Wares	106
Musical Instruments		17	Equipment for Sports and Games	4
Prints, Pictures and Art Mater	ials		Medals, Type, and Dies	16
Ornaments and Small Wares		7	Watches, Clocks, and Scientific	
Sports and Games		1	Instruments	134
Watches, Clocks, Jewellery	•	9	Surgical Instruments	্ 7
Surgical Instruments		3	Arms and Ammunition	18
Arms and Ammunition			Engines, Machines, Tools, and	
Machinery	•••	39	Implements	1,513
Carriages and Vehicles		43	Carriages and Vehicles	1,008
Harness, Saddlery & Leatherw	are	5	Harness, Saddlery & Leatherware	443
Ships, Boats, Marine Stores	•••	14	Ships, Boats, etc	176
Building Materials	•••	11	Furniture	690
Furniture		67	Building Materials	722
Chemicals and By-products		16	Chemicals and By-Products	41
Paper and Stationery		32	Textile Fabrics	74
Textile Fabrics		664	Dress	2,068
Dress		149	Fibrous Materials	63
Fibrous Materials		11	Animal Food	462
Animal Food		0.000	Vegetable Food	1,761
Vegetable Food	•••	664	Groceries, Drinks, Narcotics, and	•
Groceries, Drinks, Narcotics, an			Stimulants	511
Stimulants		1,336	Animal Matter, not elsewhere clsd.	307
Living Animals		190	Workers in wood, not elsewhere clsd	162
	- 1		Vegetable Produce for Fodder	8

OCCUPATIONS OF FATHERS OF ALL NUPTIAL CHILDREN-Continued.

Occupations.	ı	Number of Fathers.	Occupations.	Number of Fathers.
Stone, Clay, Glass, etc. Jewellery and Precious Stones Metals, other than Gold & Silver Gas, Electric Lighting, etc. Building— Builders Stonemasons	r	29 732 236 3,481 921 663 339 811	CLASS VI.—AGRICULTURAL, PASTORAL, MINING, ETC. Agricultural Pastoral Dairy Farming Bees, Fisheries, and Wild Animals Forestry Water Conservation and Supply	20,218 3,857 777 402 1,075 115
a		3,707	Mines and Quarries	6,615
Plasterers Painters		53 447 1,511	Total Primary Producers CLASS VII.—INDEFINITE.	33,059
Signwriters Others		903 79 14 333	Independent Means, having no specific occupation Occupation not stated	95
Disposal of the Dead		38 126	Total Indefinite	131
Other Industrial Workers— Manufacturers, etc		376	CLASS VIII.—DEPENDENTS.	
Engineers, Firemen Contractors		3,562 1,330	Dependent Relatives Dependent on State	
O41 '		$22,996 \\ 471$	Total Dependents	4
Total Industrial		54,648	Total all Occupations	129,380

11. Mothers' Age, Duration of Marriage, and Issue.—A tabulation has been made shewing, in age-groups, the duration of marriage and issue of mothers. The total number of nuptial confinements in 1914 was 129,880, viz., 128,040 single births, 1330 cases of twins, and 10 cases of triplets. From this number 245 mothers must be deducted, in whose case the necessary particulars either as to date of marriage or as to previous issue were not stated. The tables refer, therefore, to a total of 129,135 mothers. They exclude children by former marriages and still-born children, but include ex-nuptial children, previous issue by the same father. The tables cannot be given in extenso, but the following are their most salient features. The complete tabulations are shewn in "Commonwealth Bulletin of Population and Vital Statistics, No. 32; Commonwealth Demography, 1914, and previous years."

DURATION OF MARRIAGE AND ISSUE OF MOTHERS OF ALL AGES, COMMONWEALTH, 1914.

Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.	Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.
Years.				Years.			
0-1	21,554	21,935	1.02	18-19	1,400	10,606	7.58
1-2	10,875	12,659	1.16	19-20	1,099	8,603	7.83
2-3	11,446	20,719	1.81	20-21	949	7,848	8.27
3-4	11,687	24,634	2.11	21-22	771	6,743	8.75
4-5	9,853	24,932	2.53	22-23	618	5,608	9.07
5-6	8,322	24,237	2.91	23-24	498	4,750	9.54
6-7	7,562	24,849	3.29	24-25	386	3,703	9.59
7-8	6,750	24,732	3.66	25-26	255	2,613	10.25
8-9	5,798	23,490	4.05	26-27	133	1,424	10.71
9-10	5,043	22,255	4.41	27-28	81	916	11.31
10-11	4,394	20,817	4.74	28-29	60	648	10.80
11-12	3,687	18,609	5.05	29-30	25	295	11.80
12-13	3,585	19,330	5.39	30-31	10	120	12.00
13-14	3,235	18,462	5.71	31-32	4	41	10.25
14-15	2,954	18,121	6.13	33-34	1	12	12.00
15-16	2,347	15,487	6.60	35-36	1	8	8.00
16-17	2,068	14,111	6.82				
17-18	1 004	11,911	7.07	Total	129,135	415,228	3.22

AGES AND ISSUE OF MOTHERS, COMMONWEALTH, 1914.

Ages of Mothers.	Total Mothers.	Total Issue.	Average Number of Children.	Ages of Mothers.	Total Mothers.	Total Issue.	Average Number of Children.
Under 20 years 20-24 years 25-29 ,,	4,872 30,379 39,268	5,915 53,447 102,404	$egin{array}{c} 1.21 \\ 1.76 \\ 2.61 \\ \end{array}$	40-44 years 45 yrs. and over		46,225 5,250	6.77 8.15
30-34 ,, 35-39 ,,	90 9 0 4	109,321 92,666	3.74 5.17	All ages	129,135	415,228	3.22

PREVIOUS ISSUE OF MOTHERS OF VARIOUS AGES, COMMONWEALTH, 1914.

				Mother	rs' Ages.			
Previous Issue.	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	Total
0	₹3,945	15,293	11,013	4,462	1,478	373	24	36,588
1	832	9,410	10,489	5,143	1,692	357	18	27,941
$ar{2}$	91	4,025	8,009	5,162	2,190	467	27	19,971
3	4	1,290	5,272	4,804	2,467	585	42	14,464
	i l	294	2,752	3,740	2,446	724	35	9,991
4 5	! i	54	1,180	2,771	2,213	761	62	7,041
6		10	391	1,680	1,999	728	64	4,872
7	1]	2	112	888	1,431	745	60	3,238
8	l	1	4:2	358	954	640	62	2,057
9	: I		4	136	556	579	81	1,35€
10	i		3	31	293	389	52	768
11		***		18	117	250	55	440
12	·		1	4	68	119	28	220
13				6	19	60	20	105
14			1		8	29	10	47
15		•••			4	12	2	18
16					2	7	2	11
17				1		! 4		5
18		•••				2	į	9
Total			! —— !				_1	
Mothers	4,872	30,379	39,268	29,204	17,937	6,831	644	129,135

The tables shew a fairly regular increase in the number of children up to the period where the marriage has lasted twenty years, and it appears that the average interval between successive confinements up to that period was rather more than two years and eight months. The average number of children of all marriages was 3.22, the corresponding figure for 1913 having been 3.21, for 1912, 3.29, for 1911, 3.34, and for 1910, 3.41.

A similar table has been prepared shewing the previous issue of mothers of twins and triplets, from which it appears that 297 mothers had twins at their first confinement; 231 at their second; 230 at their third; 170 at their fourth; 140 at their fifth; 91 at their sixth; 62 at their seventh; 41 at their eighth; 40 at their ninth; 17 at their tenth; 12 at their eleventh; 5 at their twelfth; 2 at their thirteenth; and 2 at their fourteenth.

Of the ten cases of triplets 2 occurred at the first confinement; 2 at the third; 2 at the fourth; 3 at the fifth; and 1 at the eighth.

12. Interval between Marriage and First Birth.—The following table shews the interval between marriage and first birth. Twins and triplets are included, the eldest born only being enumerated:—

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, COMMONWEALTH, 1914.

Interval.	Number of First Children.	Interval.	Number of First Children.	Interval.	Number of First Children.
Under 1 month 1 month 2 months 3	535 637 908 1,108 1,384 1,776 2,329 1,987 1,581 3,813 3,218 2,154	1 year 2 years 3 ", 4 ", 5 ", 6 ", 7 ", 8 ", 9 ", 10 ", 11 ", 12 ",	9,247 2,805 1,294 599 341 259 158 118 81 56 40	13 years 14 " 15 " 16 " 17 " 18 " 19 " 20 " 21 " 22 " 23 "	30 22 14 11 15 4 6 3 2 3
		,		Total	36,588

Of these 36,588 children 18,735 were males and 17,853 were females; the masculinity of first births was therefore 104.94 as compared with 104.79 for total births.

The previous issue of mothers of ex-nuptial children is not recorded, but for the purposes of the following table all ex-nuptial births have been assumed to be first births. The table shews the ages of mothers of ex-nuptial births, of nuptial births occurring less than nine months after marriage, and of nuptial births occurring nine months or more after marriage. A comparison of the combined total of the first two columns with the total of nuptial children born nine months or more after marriage, reveals the fact that for all ages the ratio of the two was as 4 is to 5. At all ages up to and including 21, however, there was a great preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be understood that a certain number of premature births are necessarily included among the births which occurred less than nine months after marriage, but there is no means of arriving at the proportion of those births.

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, etc.

COMMONWEALTH, 1914.

Age of M at Bir Chi	th of	Ex-nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial Births nine months after Marriage and later.	Total Nuptial First Births.	Nuptial First Births and Ex-nuptial Births.
Yea	rs.						
13	/	1	1	2	1	2	3
14		23	7	30	1	8	31
15		66	22	88	. 3	25	91
16		187	151	338	22	173	360
17		382	457	839	93	550	932
18	i	598	930	1,528	285	1,215	1,813
19		712	1,328	2,040	644	1,972	2,684
20		696	1,323	2,019	990	2,313	3,009
21		650	1,600	2,250	1,488	3,088	3,738
22		539	1,315	1,854	2,065	3,380	3,919
23		491	1,181	1,672	2,164	3,345	3,836
24		437	899	1,336	2,268	3,167	3,604
25		299	662	961	2,066	2,728	3,027
26		286	539	825	2,039	2,578	2,864
27		226	374	600	1,887	2,261	2,487
28		233	330	563	1.600	1,930	2,163

164 Births.

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH—Continued.

at Bi	Mother rth of ild.	Ex-nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial Births nine monthsafter Marriage and later.	Total Nuptial First Births.	Nuptial First Births and Ex-nuptial Births.
Yes	LTS.		1 1			!	
29		180	230	410	1,285	1,515	1,695
30		169	197	366	1,226	1,423	1,592
31		126	151	277	823	974	1,100
32		122	126	248	729	855	977
33		125	98	223	577	675	800
34		113	72	185	464	536	649
35		100	58	158	355	413	513
36		88	47	135	329	376	464
37		61	31	92	235	266	327
38		72	35	107	220	255	327
39		52	30	82	138	168	220
40		50	19	69	125	144	194
41		23	15	38	84	99	122
42		18	3	21	67	70	88
43	(25	7	32	30	37	62
44		10	4	14	19	23	33
45		7	2	9	11	13	20
46		6		6	3	3	9
47		•••	1	1	4	5	5
48		•••		•••	1	1	1
49		•••	•••	•••	1	1	1
50		2		2		•••	2
52		•••		•••	1	1	1
53	•••	1		1			1
Not	stated	21		21			21
Total	•••	7,197	12,245	19,442	24,343	36,588	43,785

13. Interval between Birth and Registration of Birth.—Information was obtained during 1914 as to the period elapsing between birth and registration. It has already been mentioned at the beginning of this section that one of the effects of the law relating to maternity allowances has been to accelerate the registration of births, as the certificate of registration must be produced when a claim under the Act is lodged. In 1912, during the last quarter of which year the Act was in force, about 6 per cent. of all births were registered within seven days; in 1913 this percentage had risen to 34 and in 1914 to 40.

INTERVAL BETWEEN BIRTH AND REGISTRATION, COMMONWEALTH, 1914.

Under 1 day 1,496 1 day 5,679 2 days 7,584	484	1,611 6,163	16 days	3,167	173	0.040
3 ,, 8,215 4 ,, 8,174 5 ,, 7,714 6 ,, 7,304 7 ,, 6,580 8 ,, 5,832 9 ,, 5,139 10 ,, 5,139 11 ,, 4,890 12 ,, 4,710 13 ,, 4,585 14 ,, 4,155 15 ,, 3,557	542 402 376 264 264 216 205 223 247 267 267	8,186 8,757 8,576 8,090 7,568 6,844 6,049 5,507 5,362 5,137 4,977 4,852 4,397 3,785	17 " 18 " 19 " 20 " 21 " 22 " 23 " 24 " 25 " 26 " 27 " 28 " 29 " 30 " 31 "	2,748 2,576 2,324 2,091 1,990 1,733 1,609 1,508 1,351 1,376 1,178 939 960 897	168 139 119 136 96 106 93 84 69 57 57 48 51 53	3,340 2,916 2,715 2,443 2,227 2,086 1,839 1,702 1,592 1,420 1,370 1,330 1,226 990 1,013

INTERVAL	BETWEEN	BIRTH	AND	REGISTRATION,	COMMONWEALTH,
		19	14-C	ontinued.	

	Inter	val.	Nuptial Births.	Ex- Nuptial Births.	Total Births.	Interval.	Nuptial Births.	Ex- Nuptial Births.	Total Births.
32 33 34 35 36 37 38 39 40 41 42 43	days		850 819 686 688 636 636 637 614 594 595 503 424	80 39 28 37 36 19 34 36 29 35 22 30 16	889 847 723 724 655 670 673 643 629 617 533 440	55 days 56	181 201 193 190 178 152	Births. 19 11 17 16 24 12 31 16 15 6 6	200 212 210 206 202 164 316 123 85 51 29
44 45 46 47 48 49 50 51 52 53))))))))))))))))))))))		345 342 316 257 282 236 215 192 206 206 177	20 19 18 21 22 11 16 16 13 15	365 361 334 278 304 247	120 , 129 , 130 , 139 , 140 , 149 , 150 , 159 , 160 , 169 , 170 , 365 , 1 to 2 years and over	11 9 11 6 11 8 32 9	10 3 4 7 7 7 12 5 5	15 19 14 10 18 15 44 14 6

§ 2. Marriages.

1. Marriages, 1904 to 1914.—The number of marriages registered in the Commonwealth in 1914 was 43,311, the highest number ever recorded. There has been a steady increase in the annual number of marriages in each State since 1904, and the crude marriage-rate increased similarly in all the States until 1907, with the exception of Western Australia. In 1908 all the States, with the exception of New South Wales and Tasmania, had a lower marriage rate than in 1907, but the rate recovered in 1909 and the three following years, and was considerably higher in 1912 than in 1907 in all the States. In 1913, although the actual number of marriages was greater in Queensland, South Australia, Western Australia, and Tasmania than it had been in 1912, the marriage rate shewed a decrease in every State with the exception of Tasmania. In 1914 the number of marriages and the marriage rate increased in all the States with the exception of South Australia and Tasmania. The number of marriages in each State since 1904 is shewn below. The rate for 1912 was the highest ever experienced in the Commonwealth.

TOTAL MARRIAGES, COMMONWEALTH, 1904 to 1914.

Year.	N.S.W.	Victoria.	Qld.	S. Aust.	W. Aust.	Tas.	North. Terr.	Federal Terr.	C'wealth
1904	10,422	8,210	3,078	2,526	2,088	1,350	8		27,682
1905	10,970	8,774	3,173	2,594	2,123	1,365	5	•••	29,004
1906	11,551	8,930	3,588	2,679	2,261	1,399	2		30,410
1907	12,187	9,575	4,105	3,070	2,114	1,410	9		32,470
1908	12,641	9,335	4,009	3,112	2,012	1,432	10		32,551
1909	13,025	9,431	4,543	3,275	1,997	1,494	10		33,775
1910	14.307	10.239	4,768	3,661	2,107	1,493	17		36,592
1911	15.278	11,088	5,167	4,036	2,421	1,477	10	(a) 5	39,482
1912	16,666	11,738	5,627	4,056	2,524	1,506	24	6	42,147
1913	16,307	11.324	5,655	4,094	2,572	1,620	16	6	41,594
1914	17,357	11,829	5,894	4,010	2,660	1,543	17	1	43,311

(a) Part of New South Wales prior to 1911.

^{2.} Marriage Rates, 1904 to 1914.—The number of marriages registered per thousand of mean population is shewn in the following table for the same period:—

CRUDE MARRIAGE RATE (a), COMMONWEALTH. 1904 to 1914.

Year.	N.S.W.	Victoria.	Q1d.	S. Aust.	W. Aust.	Tas.	North Terr.	Federal Territory.	C'wealth.
1904	7.24	6.83	5.90	7.08	8.92	7.38	1.90		7.02
1905	7.46	7.28	6.00	7.21	8.61	7.40	1.21	•••	7.25
1906 1907	7.68 7.89	7.36 7.81	$6.69 \\ 7.56$	7.38 8.35	8.89 8.27	7.59 7.63	0.50	•••	7.49 7.87
1907	0.00	7.53	7.24	8.23	7.80	7.64	2.74		7.76
1909	0.15	7.48	7.97	8.43	7.59	7.85	2.83		7.90
1910		7.98	8.06	9.21	7.77	7.82	5.00		8.37
1911		8.40	8.41	9.81	8.44	7.76	3.01	(b) 2.81	8.79
1912 1913	9.60 9.02	8.65 8.13	$8.91 \\ 8.67$	9.62 9.44	8.37 8.19	7.86 8.27	7.14	2.95	9.07
1915	9.02	8.31	8.73	9.11	8.22	7.78	4.53	2,45 0.38	8.80
					1	,	1	1	

(a) Number of marriages (not persons married) per 1000 of mean annual population. (b) Part of New South Wales prior to 1911.

As in some international tabulations the marriage rates are calculated per 1000 of the unmarried population of 15 years and over, the corresponding rates have been worked out for the Commonwealth for the four last Census periods. The figures comprise in each case the Census year with the year immediately preceding and the year immediately following, and are as follows:—Years 1880-82, 48.98; years 1890-92, 45.74; years 1900-02, 42.14; years 1910-12, 50.10. These rates refer, of course, to persons married and not to marriages, as do the rates in the preceding table.

3. Marriage Rates in Various Countries.—A comparison of the Australian marriage rate with that of European countries shews that during the last few years it has only been surpassed by the rate for Ontario, and equalled by the rate of some of the countries of the East of Europe, and that it has been higher than the rate of the countries of Central and Western Europe, and especially than the rate of countries of the North of Europe:—

CRUDE MARRIAGE RATES .- VARIOUS COUNTRIES.

Country.	Year.	Crude Marriage Rate.	Country.		Year.	Crude Marriage Rate
(Ontario) Canada New South Wales Rumania South Australia Bulgaria Commonwealth Japan Queensland Hungary New Zealand Victoria Western Australia Belgium	1913 1914 1913 1914 1910 1914 1910 1914 1914 1914 1914	10.0 9.4 9.2 9.1 9.1 8.8 8.7 8.6 8.5 8.3 8.2 8.0	Netherlands Italy France United Kingdom Austria Switzerland Denmark Scotland Spain Ceylon Norway Chile Finland		1913 1912 1913 1913 1912 1912 1913 1913	7.8 7.6 7.5 7.5 7.4 7.3 7.2 7.1 6.8 6.3 6.3 6.0 5.9
Belgium Prussia German Empire Russia, European Tasmania England and Wales	 1912 1912 1909 1914 1913	8.0 7.9 7.9 7.8 7.8	Sweden Ireland Serbia Jamaica		1913 1913 1912 1913	5.9 5.1 4.4 3.1

^{4.} Age at Marriage.—(a) The age at marriage of bridegrooms and brides will be found in the following table, the previous conjugal condition of the contracting parties being distinguished. It will be seen that no less than 1617 males were married during 1914 who were less than twenty-one years of age. The corresponding number of females was 8574, of whom six were widows, and one was divorced. At the other extreme there were thirty-two men of sixty-five years and upwards, who described themselves bachelors, and thirteen spinsters of corresponding ages.

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED, 1914.

COMMONWEALTH.

	A 110 01		:	Brideg	rooms.			Bri	des.	
N	Age at Iarrias	ge.	Bachelors	Widowers	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
3 ,	ears						3			
4	,,						14			14
5	,,					•••	. 71			7:
6	,,	•••	. 18			18	338			338
7	,,	•••	48			48	941			94
8	,,		190			190	1,809	1		1,81
9	,,	•••	451		ł	451	2,549	2		2,55
0	"		910			910	2,842	3	1	2,84
1	,,	• • • •	2,417	1		2,418	4,589	8	4	4,60
22	27	•••	2,984	3	1	2,988	4,007	20	1	4,02
3	"	•••	3,483	9		3,492	3,808	21	8	3,83
14	,,	• • •	3,682	13	. 3	3,698	3,501	31	3	3,53
25	"		3,630	9		3,639	2,988	38	9	3,03
6	"	•••	3,553	27	3	3,583	2,518	57	12	2,58
27	,,	•••		34	5	3,100	2,085	47	15	2,14
18 19	"	•••	2,800	45 46	6 15	2,851	1,748	63 58	11 28	1,82
0	**	•••	2,368			2,429	1,363	68		1,44
31	**	•••	1,855	58	12	1,925 $1,478$	1,142	62	19	1,22
32	. **	•••	1,416	51 64	11		693	61	18	83
33	**	•••	1,222	70	15 9	1,301 1,062	577	68	26	76
34	"	••	1 000	81	14	995	459	67	13	67 53
35	,,	• •		82	10	782	399	75	18	49
36	*1	••	1 -00	66	14	663	306	92	7	49
37	,,		1	61	14	577	254	68	12	33
38	**	••		81	10	575	234	75	10	31
39	,,	•••	377	68	13	458	188	70	. 16	27
10	,,		0.7	73	5	395	140	73	7	22
1	"		0.0	66	9	287	84	59	6	14
12	"			68	10	295	102	66	8	17
13	,,		1 ^	86	9	310	88	57	9	15
14	"		1 -~-	69	7	253	67	48	3	11
15	"			61	İ	222	57	59	9	12
16	٠ ,,	٠	. 109	59	12	180	51	62	6	11
17	"		. 104	51	6	161	48	52	3	10
18	",		. 81	62	5	148	30	52	4	8
19	,,		1 00	62	7	159	25	55	3	8
50	"		. 75	80	6	161	19	38	4	l e
51	,,		. 46	53	5	104	20	42		•
52	,,		. 47	64	2	113	· 11	34	1	4
53	,,		. 37	47	4	88	9	32	1	4
54	,,		. 35	60	5	100	11	30	2	4
55	,,			47	1	84	2	21	···.	2
56	1,		. 22	52	3	77	7	12	1	1 2
57	,,			43	5	66	7	13	2	2
58	,,			54	2	72		17	1	5
59	,,	••		34		46		12	1]]
60	,,			30	1	49		12	•••	
61	"			30	···	39		3		[
62	,,			21	1	25		10	• • • • • • • • • • • • • • • • • • • •	
63	,,			18	2	23		9	1	! :
64	"			14	•••	20		9	•••] :
65	,,	• •		16	1	20		11		:
66	,,	••		24	•••	28		5		!
67	,,			12	• • • • • • • • • • • • • • • • • • • •	13		4		ĺ
68	"			15	1	20		4		
69	"	• •				17		7		1
70	,,		. 3	. 11	· · · · · ·	14	1	3		١,

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED, 1914—Continued.

COMMONWEALTH.

	Age a			Brideg	rooms.			Bri	ides.	
	Marria	ge.	Bachelors	Widowers	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
71	years	•••	1	10		11	1	4		5
72	,,	• • •	•••	9		9	2	3		5
73	,,	•••	1	10		11	•••	1	l i	1
74	,,	•••	1	10		11	•••	2	1 1	2
75	,,		3	5		8	1			1
76	,,	•••	•••	4	•••	4		2		2
77	**	•••	1	1		2		•••		•••
78	,,	•••	2	2		4				•••
79	** **	•••		5	•••	5		2		2
80	**	•••	1	1	•••	2	•••			•••
81	**	•••	1		•••	1		1		1
82	19	•••		2	•••	2		•••	1 1	•••
83	"	•••	1		•••	1	•••	•••		•••
84	,,	•••	1	1	•	2			***	•••
86 87	,,		1			1				•••
	+ =+=+=		13	1 3	•••	16	17	4		
TAC	t state	a	13	3		10	111	4		21
	Tota	1	40,710	2,330	271	43,311	41,012	1,985	314	43,311

⁽b) The relative ages of bridegrooms and brides are shewn for single years in "Bulletin of Population and Vital Statistics, No. 32"; a condensation into age-groups of five years is here given:—

RELATIVE AGES OF PERSONS MARRIED, COMMONWEALTH, 1914.

	Total									
Ages	Bride- grooms.	Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and Upwds.	Not Stated
Under 20	6,761 3,055 1,540 870 566 345 156 187	4 9 4 	469 3,308 1,422 358 107 31 8 4 4 	219 8,167 7,479 2,102 604 174 60 25 11 3	13 1,756 5,354 2,449 932 336 118 51 17 12 2	1 201 1,062 1,357 756 387 164 62 32 11 9	1 53 212 387 465 333 192 106 50 16 9	9 42 82 130 198 141 115 52 24 24	2 26 25 60 80 185 203 178 90 142	 1 1 1 1 2 1
Total Brides	43,311	17	5,711	18,847	11,040	4,042	1,824	817	992	21

^{5.} Previous Conjugal Condition.—In a previous table the total number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1914, was shewn. .In the following table the relative conjugal condition of the contracting parties is given:—

RELATIVE CONJUGAL CONDITION OF PERSONS MARRIED, COMMONWEALTH, 1914.

		Total	Brides.					
Conjugal Cond	ition.	Bridegrooms.	Spinsters.	Widows.	Divorced.			
	elors owers rced	40,710 2,330 271	39,147 1,640 225	1,319 637 29	244 53 17			
Total Brides		43,311	41,012	1,985	314			

6. Birthplaces of Persons Married.—Information as to the birthplaces of persons who were married in 1914 was not obtained in the State of Western Australia; the following figures refer, therefore, only to New South Wales, Victoria, Queensland, South Australia, Tasmania, the Northern Territory and Federal Territory. As might be expected, there were more brides than bridegrooms who were natives of the Commonwealth. In "Bulletin No. 32, Commonwealth Demography," the relative birthplaces of bridegrooms and brides will be found tabulated.

BIRTHPLACES OF PERSONS MARRIED, 1914.

COMMONWEALTH (a).

Birthplaces.	Bride- grooms.	Brides.	Birthplaces.	Bride- grooms.	Brides.
AUSTRALASIA—			ASIA-cont		
New South Wales	. 12,745	14,403	Philippine Islands	1	
Victoria	. 10,792	11,235	Syria	16	9
Queensland	3,923	4,805	Other Asiatic Countries	2	2
South Australia	3,541	3,867	AFRICA-		
Western Australia	. 67	49	Cape of Good Hope	8	
Tasmania	1,632	1,767	Mauritius	6	2
Northern Territory	. 6	10	Natal	2	_
New Zealand .	569	327	S. Africa (Undefined)	39	22
EUROPE-		1	Other African British		
77 3	4,362	2,575	Possessions	1 1	1
XX7-1	101	47	Egypt	4	
G (1 1	1,137	722	Other African Coun-		•••
T 1 1	552	391	tries	2	
T.1 6 Man	9	2		_	•••
Other European Br			AMERICA—		
	19	7	Canada	44	10
	25	10	Newfoundland	1	1
TD - 1 1	7	1	Other American Bri-	1 .	
T 1	50	14	tish Possessions	1	1
-	26	25	Argentine Republic		•••
~	270	101	Brazil Mexico	1 1	
~	27	3	TT '/ 2 C/ /	_	1
Italy	71	42	Other American Coun-	142	47
37 (5 1 3)	25	11	4	15	-
Norway	35	9		10	7
T)	1	3	POLYNESIA-		
.	61	26	∥ <u>F</u> iji	14	10
Spain	7	3	Papua	• • • •	1
~* .	69	8	Other Polynesian Bri-	l .	
Switzerland .	13	5	tish Possessions	2	
Other European Cou	n-	1	New Caledonia		2
tries	7	5	New Hebrides		
ASTA-		1	Samoa		•••
D (11) 1. T. 31.	=0	21	Other Polynesian Is		1
	50		lands	. 3	
	4	3	South Sea Islands (so described)		
a	``I		described)	21	2
CI.:	F-1	1 9	At sea	. 34	14
_		1 1	Not stated	1 10	10
±	١ .	1 1			10
Java	3	1 1	Total	40,651	40,651

(a) Exclusive of Western Australia.

7. Occupations and Ages of Bridegrooms.—A tabulation has been made of the occupations and ages of all males married in the Commonwealth in the years 1907 to 1914. In "Bulletin No. 32" the 1914 tabulation is shewn for orders of occupations: here it is repeated for classes only, with a subdivision of the Industrial class and of the class of Primary Producers. The average ages of the persons

170 MARRIAGES.

falling under those twelve subdivisions were determined, and it appears that, apart from the Indefinite class, which consists chiefly of persons who have retired from business and who are living on their own means, and where a high average age may naturally be expected, the average age ranges from 27.94 in the Transport and Communication and Manufacturing classes to 32.16 years in the Pastoral class. The averages for the five years 1907-1911 and the figures for 1912 and 1913 have been added for the purposes of comparison. The results obtained are shewn in the following table:—

OCCUPATIONS AND AGES OF BRIDEGROOMS, COMMONWEALTH, 1914.

			1		e ii	In	dustri	al.	Pri	nary :	Produ	ers.	
Ages at M	arriage.	Professional	Domestic.	Morcantile.	Transport and Communication.	Manu- facturing.	Building and Construction.	Indefinite Industrial Workers.	Agricultural.	Pastoral.	Mines and Quarries.	Other Primary Producers.	Indefinite.
16 years 17 18 19 20 21 21 22 23 24 25 26 27 28 30 31 32 33 33 34 35 to 39 years 40 44 50 years and up		1 7 6 26 26 27 145 178 239 258 246 243 193 103 103 103 123 123 123 123 123 123 123 12	1 4 15 166 477 73 106 78 83 67 78 50 35 400 255 82 60 31 41	3 8 8 27 63 113 320 410 536 626 633 641 251 210 175 534 265 130 189 1	4 8 28 28 28 28 319 369 478 479 483 427 346 318 267 199 154 117 102 86 265 121 58 100	4 99 38 99 166 482 521 515 543 434 362 300 169 112 314 152 76 147 3	1 21 37 71 178 233 246 2217 197 165 73 78 52 61 130 79 90 90 93 3	4 155 46 125 240 614 768 838 776 711 591 551 486 219 209 627 310 177 256 3	3 11 24 60 199 254 331 412 386 442 396 381 211 159 150 533 260 146	 4 4 4 43 50 69 63 81 86 83 101 73 46 53 43 50 142 81 54 68	12 16 62 97 134 148 122 129 125 177 74 34 35 33 148 66 35 57	3 1 5 5 20 27 27 27 33 34 21 24 25 20 13 112 10 5 5 20 17 19 19	1 24 66 66 64 42 33 32 22 44 49 97 14 6 36 1
Total		2,933	1,083	7,231	4,927	6,140	2,913	9,298	5,378	1,268	1,638	380	122
Average age—	years (1914) (1913) (1912) (1907-1911)	30.03 30.54 30.75 31.12	30.07 29.82 30.29 30.32	29.31 29.33 29.45 29.73	27.94 28.07 28.70 28.65	27.94 27.95 27.58 28.27	28.56 28.81 30.33 29.11	28.73 28.45 28.57 28.83	30.35 30.79 30.85 30.99	32.16 32.24 32.09 32.50	28.55 29.08 28.94 29.14	29.92 30.02 29.54 29.43	40.28 42.38 41.90 41.60

The average age at marriage of brides has slowly risen from 25.56 years in 1907 to 25.78 years in 1913 and 1914. The figures for the eight years are:—1907, 25.56 years; 1908, 25.67 years; 1909, 25.74 years; 1910, 25.77 years; 1911, 25.74 years; 1912, 25.74 years; 1913, 25.78 years; and 1914, 25.78 years. For the five years 1907-11 the average age was 25.70 years. compared with 25.74 years in 1912, and 25.78 years in 1913 and 1914. As the average age of all bridegrooms during 1914 was 29.13 years, it follows that brides are on an average not quite three years and a half younger than bridegrooms.

8. Fertility of Marriages.—The quotient obtained by division of the nuptial births registered, say during the five years 1910 to 1914, by the number of marriages registered during the five years 1905 to 1909, i.e., the period antecedent by five years to the period of the births, has been called the "fertility of marriages." This works out at 3.86, or in other words, the number of children to be expected from every marriage in the Commonwealth is under four. This method, while not professing any claim to accuracy, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation, but in this instance it is, owing chiefly to the fictitious increase in the number of births shewn in 1912, rather higher than for a number of years prior to 1912. For the period 1907-11 the result was 3.43, for the year 1912, 3.87, and for the year 1913, 3.85.

9. Registration of Marriages.—In all the States of the Commonwealth marriages may be celebrated either by ministers of religion, whose names are registered for that purpose with the Registrar-General, or by certain civil officers, in most cases district registrars. The percentage of marriages celebrated by ministers of religion has fluctuated during the last eleven years between 96.50 per cent. in 1913 and 97.55 per cent. in 1909. The figures for the individual States in 1914 were: New South Wales, 97.77 per cent.; Victoria, 97.36 per cent.; Queensland, 95.71 per cent.; South Australia, 95.54 per cent.; Western Australia, 87.44 per cent.; and Tasmania, 98.12 per cent., the percentage for the Commonwealth being 96.54. The registered ministers in 1914 belonged to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been omitted from the tabulation, and are bracketed under the heading. "Other Christians." The figures for 1914 are shewn in the following table:—

MARRIAGES IN EACH DENOMINATION, COMMONWEALTH, 1914.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N. Ter.	Fed. Ter.	Com'- wealth
Church of England .	7,454	3,255	1,620	957	1,074	576	6	1	14,943
D 0 1 1 0 1	. 3,073		1,174	438	455	217	4		7,459
Presbyterian Church of Aust.	. 2,338	2,225	891	215	189	179			6,037
Methodist Church	. 2,667	1,836	1,015	1,193	378	242	2	J	7,333
Congregational Church .	. 562	1,039	164	257	96	136			2,254
Baptist Church	. 373	500	291	256	61	81			1,562
Church of Christ	. 254	283	19	238	28	22			844
Lutheran Church	. 24	63	140	203	8				438
Greek Orthodox Church .	. 11	4			2				17
Unitarian Church	21			1			· · · ·		22
Salvation Army	73	64	44	42	. 21	11			255
	19	16	4	5	6	1			51
	50	90	273	23		49			485
Hebrew	48	44	5	3	8				108
	387	312	253	179	334	29	5		1,499
Unspecified	. 3		1		•••			•••	4
Total	17,357	11,829	5,894	4,010	2,660	1,543	17	1	43,311

- 10. Mark Signatures.—The marriage registers afford some clue, even if an imperfect one, to the illiteracy of the adult population, since a small and constantly diminishing percentage of bridegrooms and brides sign the registers with marks.
- (i.) Males and Females, 1904 to 1914. For a number of years, with the exception of 1905, 1908, 1910, 1912, and 1913 mark signatures by males have been slightly more numerous than those by females, the percentages for the Commonwealth during the past eleven years having been as follows:—

PERCENTAGE OF MARK SIGNATURES AT MARRIAGE, COMMONWEALTH, 1904 to 1914.

Year 1904.	1905.	1906.	1907	1908.	1909.	1910.	1911.	1912.	1913.	1914.
Male 0.95	0.91	0.92	0.81	0.71	0.65	0.56	0.56	0.43	0.36	0.41
Female 0.91	0.93	0.86	0.70	0.73	0.62		0.54	0.45	0.38	0.38

(ii.) Mark Signatures in Commonwealth States, 1904 to 1914. The following table shews that while the Tasmanian percentage has been the highest, and the Victorian the lowest, in each of the eleven years under review, there has been a marked decrease in every State:—

PERCENTAGE OF MARK SIGNATURES AT MARRIAGE, COMMONWEALTH, 1904 to 1914.

Year.		n.s.w.	Vic.	Q'land.	S. Aust.	W. Aust	Tas.	North. Terr.	Fed. Terr.	C'wealth.
1904		0.90	0.54	1.72	0.65	0.53	2.85			0.93
1905		1.12	0.44	1.39	0.83	0.57	2.12			0.92
1906		0.94	0.43	1.67	0.65	0.66	2.18	25.00		0.89
1907		0.87	0.36	1.14	0.55	0.64	2.02			0.76
1908		0.79	0.33	1.20	0.56	0.82	1.57			0.72
1909		0.60	0.22	1.16	0.55	0.68	2.07	30.00		0.64
1910		0.61	0.29	0.92	0.44	0.52	1.17	29.41		0.58
1911		0.54	0.22	0.84	0.46	0.78	1.96	15.00	(a)	0.55
1912		0.33	0.27	0.60	0.54	0.61	1.29	25.00		0.44
1913		0.33	0.17	0.45	0.34	0.78	1.20	8.33		0.37
1914	••••	0.36	0.19	0.59	0.45	0.53	1.00	1.47		0.39
					1			i		'

(a) Part of New South Wales prior to 1911.

A complete disappearance of mark signatures is hardly to be expected, for the available information tends to shew that two-thirds of those who sign with marks are natives of their respective States, who apparently have not made use of the advantages offered to them by the State schools.

§ 3. Deaths.

1. Male and Female Deaths, 1904 to 1914.—The total number of deaths registered in the Commonwealth from 1904 to 1914 inclusive, gives an annual average of 27,039 males and 19,912 females, the details being as follow:—

MALE DEATHS, COMMONWEALTH, 1904 to 1914.

Year.	N.S.W.	Vie.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Terr.	C'wealth.
1904	8,733	7,992	3,259	2,019	1,823	1,061	52		24,939
1905	8,709	8,273	3,499	2,003	1,728	1,061	38		25,311
1906	8,715	8,342	3,212	2,053	1,878	1,118	56		25,374
1907	9,444	7,977	3,482	1,998	1,866	1,083	89	١	25,939
1908	0.000	8,816	3,500	2,029	1,800	1,112	77		26,632
1909	9,184	8,070	3,419	2,080	1,671	1,030	60		25,514
1910	9,339	8,128	3,594	2,163	1,760	1,098	72		26,154
1911	9,973	8,355	4,060	2,179	1,923	1,037	59	(a) 5	27,591
1912	11,094	9,072	4,305	2,409	2,210	1,130	61	4	30,285
1913	11,508	8,495	4,195	2,563	1,852	1,189	53	4	29,859
1914	10,984	9,017	4,132	2,621	1,942	1,063	69	7	29,835
Rate,(b) 1914	11.32	12.65	11.32	11.87	10.70	10.35	22.57	4.22	11.67

(a) Part of New South Wales prior to 1911. (b) Number of deaths per 1000 of mean population.

FEMALE DEATHS, COMMONWEALTH, 1904 to 1914.

Yes	ar.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aus.	Tas.	North. Terr.	Fed. Terr.	C'wealth
1904		6,627	6,401	1.991	1.700	994	913	7		18,633
1905		6.269	6,403	2,004	1.758	981	783	5		18,203
1906		6,260	6,895	1,883	1.819	1,206	893	3		18,959
1907		6,967	6,562	2,116	1,738	1,065	915	3		19,366
1908		6,757	6,950	2,180	1,805	1,079	1,017	6		19,794
1909		6,626	6,366	2,111	1,702	1,033	812	8		18,658
1910		6,819	6,604	2,150	1,851	980	1,022	10		19,436
1911		7,173	6,861	2,484	1,859	1,000	890	6	(a) 5	20,278
1912		7,768	7,517	2,616	1,927	1,125	927	6	6	21,892
1913		8,191	6,979	2,588	2,130	1,082	942	11	7	21,930
1914		7,736	7,486	2,599	2,092	1,101	855	12	4	21,885
Rate, (b) 1914	8.77	10.53	8.39	9.54	7.75	8.94	17.29	3.94	9.27

(a) Part of New South Wales prior to 1911. (b) Number of deaths per 1000 of mean population.

2. Male and Female Death Rates, 1914.—The crude male and female death rates for 1914 only are given in the last line of the preceding tables. Victoria has the highest rate both for males and for females, while Western Australia has the lowest male and the lowest female death rate. The rates for the two Territories are based on very small numbers, and comparisons with the States are misleading.

Owing to differences in the age constitution of the six States, the crude rates are not, however, strictly comparable, but for the purposes of calculating the "Index of Mortality" (see page 185) a distribution into five age-groups has been made, and the death rates are shewn for males and females in each State in five-year age groups for the three years 1910-1912, that is, for the census year and for the year immediately preceding and following, on page 180.

3. Death Rates of Various Countries.—A comparison with foreign States is, for the same reason, apt to shew the Commonwealth in too favourable a light, but even if an allowance for the different age constitution were made, it would still be found occupying a very enviable position. The following table gives particulars of the death rates of various countries for the latest available years:—

DEATH RATES (a) OF VARIOUS COUNTRIES.

Country.	Year.	Crude Death Rate.	Country.		Year.	Crude Death Rate.
New Zealand Western Australia Tasmania Queensland New South Wales Commonwealth South Australia Victoria Netherlands Denmark Ontario (Canada) Norway Sweden	1914 1914 1914 1914 1914 1914 1914 1913 1913	9.3 9.4 9.7 10.0 10.1 10.5 10.7 11.6 12.3 12.5 12.7 13.2	Scotland German Empire Finland Ireland France Italy Austria Japan Serbia Jamaica Spain Bulgaria Hungary		1913 1912 1912 1913 1913 1912 1912 1910 1912 1913 1913 1910 1912	15.5 15.6 16.3 17.1 17.7 18.2 20.5 21.1 21.7 22.1 23.2 23.3
England and Wales Switzerland United Kingdom Belgium Prussia	 1913 1912 1913 1912 1912	13.7 14.1 14.2 14.8 15.5	Rumania Ceylon Russia, European Chile	•••	1913 1913 1909 1912	25.9 28.4 28.9 29.7

(a) Number of deaths per 1000 of mean population.

4. Total Deaths, 1904 to 1914.—The total number of deaths in each of the Commonwealth States during the eleven years 1904 to 1914, is shewn below:—

TOTAL DEATHS, COMMONWEALTH, 1904 to 1914.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aus.	Tas.	North. Terr.	Federal Terr.	C'wealth.
1904	15,360	14,393	5,250	3,719	2,817	1,974	59		43,572
1905	14,978	14,676	5,503	3,761	2,709	1,844	43		43,514
1906	14,975	15,237	5,095	3,872	3,084	2,011	59		44,333
1907	16,411	14,539	5,598	3,736	2,931	1,998	92	i I	45,305
1908	16,055	15,766	5,680	3,834	2,879	2,129	83		46,426
1909	16,810	14,436	. 5,530	3,782	2,704	1,842	68		44,172
1910	16,158	14,732	5,744	4,014	2,740	2,120	82		45,590
1911	17,146	15,216	6,544	4,038	2,923	1,927	65	(a) 10	47,869
1912	18,862	16,589	6,921	4,336	3,335	2,057	67	10	52,177
1913	19,699	15,474	6,783	4,693	2,934	2,131	64	11	51,789
1914	18,720	16,503	6,731	4,713	3,043	1,918	81	11	51,720

(a) Part of New South Wales prior to 1911.

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5. Crude Death Rates, 1904 to 1914.—The death rate for 1914 shewed an increase on that for 1913 in Victoria and Western Australia, and a decrease in New South Wales, Queensland, South Australia, Tasmania, and the Commonwealth as a whole. The rates for each State, South Australia excepted, are below the average for the period, and in Tasmania the rate was the lowest on record, while in Western Australia 1913 had been slightly more favourable. The Commonwealth rate for 1914 was lower than in any of the other years of the period under review excepting the years 1909 and 1910, and below the average for the period.

CRUDE DEATH RATE (a), COMMONWEALTH, 1904 to 1914.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Federal Terr.	C'wealth.
		i							
1904	10.67	. 11.97	10.06	10.42	12.04	10.79	13.98		11.05
1905	10.18	12.17	10.40	10.45	10.98	10.00	10.42	!	10.88
1906	9.95	12.55	9.50	10.66	12.12	10.91	14.84	l i	10.92
1907	10.63	11.86	10.31	10.16	11.47	10.81	24.07		10.99
1908	10.20	12.71	10.26	10.14	11.17	11.36	22.71		11.07
1909	9.89	11.45	9.70	9.74	10.27	9.68	19.22		10.33
1910	9.89	11.49	9.71	10.09	10.11	11.10	24.10		10.43
1911	10.32	11.52	10.65	9.82	10.19	10.13	19.58	(b)5.62	10.66
1912	10.86	12.23	10.96	10.28	11.06	10.73	19.95	4.91	11.23
1913	10.89	11.11	10.39	10.82	9.34	10.87	17.49	4.49	10.78
1914	10.11	11.59	9.97	10.71	9.41	9.67	21.59	4.16	10.51

(a) Number of deaths per thousand of mean population for year. (b) Part of New South Wales prior to 1911.

6. Male and Female Death Rates, 1904 to 1914.—The rise in the Commonwealth rate from 1905 to 1907 was due to an increase in the female death rate, while the increase in 1908 was practically limited to the male death rate, as the subjoined table shews. The decrease from 1908 to 1909 was fairly equal for the male and female rates, and the increase in 1910 was due to a rise in the female rate. From 1910 to 1911, and again from 1911 to 1912 the increase in the male rate was about one and a half times as marked as that in the female rate, while the decrease from 1912 to 1913 was more than twice as great for the male rate than for the female rate. The decrease from 1913 to 1914 was fairly equal for the male and female rates.

MALE AND FEMALE DEATH RATES (a), COMMONWEALTH, 1904 to 1914.

Year.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.
Male rate F'male ,,	12.12 9.88	12.14 9.50	12.01 9.73			11.51 9.06		11.82 9.40	12.51 9.84	11.93 9.53	$11.67 \\ 9.27$
Crude to- tal rate	11.05	10.88	10.92	10.99	11.07	10.33	10.43	10.66	11.23	10.78	10.51

(a) Number of deaths per thousand of mean population.

7. Infantile Death Rate.—(i.) Deaths and Death Rates of Male and Female Infants, 1904 to 1914. Improvement continues to take place in the infantile death rate since 1904, in which year it stood at \$1.77 per thousand births registered, while in 1914 it had fallen to 71.47 per thousand, a rate lower than that experienced in any previous year, 1911 excepted. In the following table, which shews both the total number of deaths of children under one year and the rate per thousand births since 1904, males and females are distinguished. The universal experience that during the first few years of life the excess of male births tends to disappear, as a consequence of the higher death rate of male infants, is shewn by the fact that out of 665,625 male infants born from 1904 to 1914, 55,242 died during their first year of life, while of 633,061 female infants the number who died was only 42,934:—

NUMBER OF INFANTILE DEATHS AND RATES OF INFANTILE MORTALITY, COMMONWEALTH, 1904 to 1914.

Yea	_	Registere	d Deaths under	one year.	Rate of Infantile Mortality (a) .			
168	r.	Males.	Females.	Total.	Males.	Females.	Total.	
1904		4,713	3,800	8,513	88.33	74.87	81.77	
1905	!	4,884	3,696	8,580	90.62	72.41	81.76	
1906		5,002	3,981	8,983	90.10	76.01	83.26	
1907		4,993	3,952	8,945	88.39	73.38	81.06	
1908		4,885	3,791	8,676	85.53	69.65	77.78	
1909		4,604	3,559	8,163	78.73	64.02	71.56	
1910		4,916	3,822	8,738	81.65	67.53	74.81	
1911		4,745	3,624	8,369	75.91	60.72	68.49	
1912		5,446	4,102	9,548	80.06	63.04	71.74	
1913		5,472	4,328	9,800	78.81	65.30	72.21	
1914		5,582	4,279	9,861	79.06	63.51	71.47	

(a) Number of deaths under 1 year per 1000 births registered.

(ii.) Infantile Mortality, 1904 to 1914. Divided among the States and Territories, the rates of infantile mortality during the last eleven years was as follows:—

RATES (a) OF INFANTILE MORTALITY, COMMONWEALTH, 1904 to 1914.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Federal Territory.	Com'- wealth.
1904 1905 1906 1907 1908 1909 1910 1911 1912 1913	88.46 75.20 73.87	77.92 83.30 92.92 72.60 86.05 71.36 76.88 68.70 74.48 70.53 78.27	76.13 75.52 74.68 77.65 70.67 71.50 62.90 65.36 71.73 63.35 63.93	70.00 72.80 75.66 66.23 69.50 60.91 70.21 60.60 61.68 69.83 75.79	113.02 104.19 110.00 97.51 84.72 78.01 78.18 76.01 82.06 70.30 68.12	90.70 80.65 90.19 82.97 75.16 64.91 101.68 73.39 66.80 70.68 71.46	212.12 111.11 160.00 185.19 58.82 111.11 200.00 96.77 121.21 115.38 51.72	(b) 33.34 76.92 22.73	81.77 81.76 83.26 81.06 77.78 71.56 74.81 68.49 71.74 72.21 71.47

(a) Number of deaths under I year per 1000 births registered. (b) Part of New South Wales prior to 1911.

The movement has been a fairly regular one, shewing slight increases in the rates during 1906, 1910, and 1913. The minimum rates in the six States occurred at different periods, viz., Tasmania, in 1909; Queensland, in 1910; Victoria and South Australia, in 1911; New South Wales and Western Australia, in 1914. The regrettable increase in the Victorian rate for 1908 over that of 1907 was wholly due to the large mortality caused by the phenomenal heat of January, 1908. With the exception of Queensland, where the 1908 rate was exceptionally low, the 1909 rate was the lowest ever experienced up to that date in any of the States. A rise occurred in every State in 1910, with the exception of Queensland, which was counterbalanced by a considerable decrease during 1911 in every State but Queensland. In 1912 the rates shewed a rise in every State except Tasmania, and this was followed by a decrease in 1913 in Victoria, Queensland, and Western Australia, and by a further rise in New South Wales, South Australia, and Tasmania. In 1914 the rates increased in every State except New South Wales and Western Australia, the increases in Victoria and South Australia being particularly The decrease in New South Wales was, however, large enough to fully counterbalance the increases in the other States, so that the Commonwealth rate for 1914 was the lowest on record.

(iii.) Infantile Mortality in Various Countries and Cities. Compared with European countries, the cities and States of the Commonwealth occupy a very enviable position, and it may be pointed out that experience has shewn that a high birth rate is often, though not invariably, accompanied by a high infantile death rate. The figures in the subjoined tables relate to the latest years for which returns are available:—

RATE (a) OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

	_: :						
Country.	Year.	Rate of Infan- tile Mor- tality. (a)	Crude Birth Rate. (b)	Country.	Year.	Rate of Infan- tile Mor- tality.	Crude Birth Rate. (b)
New Zealand	1913	59	26.0	Scotland	1913	110	25.5
Queensland	1914	64	29.5	Ontario (Canada)	1913	117	24.0
Western Australia .	1914	68	28.5	Belgium	1912	120	22.6
Norway	1912	68	25.6	Italy	1912	130	32.4
New South Wales	1914	69	29.0	Prussia	1912	146	28.9
Commonwealth	1914	71	28.1	Serbia	1911	146	36.2
Tasmania	1914	71	30.3	German Empire	1912	147	28.3
Sweden	1911	72	24.0	Spain	1907	158	33.6
South Australia	1914	76	29.3	Bulgaria	1910	159	41.7
Victoria	1914	78	25.5	Japan	1910	160	33.9
France	1912	78	19.0	Jamaica	1913	171	35.3
Netherlands	1913	91	28.1	Austria	1912	180	31.3
Denmark	1913	94	25.6	Hungary	1912	186	36.3
Switzerland	1912	94	24.1	Ceylon	1913	189	38.6
Ireland	1913	97	22.8	Rumania	1913	202	42.1
England and Wales	1913	108	23.9	Russia, European	1909	248	44.0
United Kingdom	1913	108	24.0	Chile	1911	332	38.5
Finland	1912	109	29.1	i i		}	
				1			

(a) Number of deaths under 1 year per 1000 births registered. (b) Number of births per 1000 of mean population.

RATE (a) OF INFANTILE MORTALITY IN VARIOUS CITIES.

Rate of Rate of Infan-Infantile City. Year. City. Year. Mor-Mortality. tality. 1912 Belfast 1912 Amsterdam 64 129 Hamburg ... The Hague... 1912 66 1912 130 Sydney 1914 69 Strassburg 1912 131 1912 1914 69 Leipzig 133 Brisbane Perth 1914 69 Stuttgart ... 1912 133 • • • ... Rotterdam ... 1912 79 Munich ... 1912 134 Antwerp ... Melbourne ... 1914 1912 140 24 Adelaide ... Dublin 1912 140 1914 84 86 Budapest ... 1912 141 Stockholm 1912 ... London ... 1912 1912 91 Berlin 142 ... ••• ... Zurich 1910 93 Marseilles 1911 144 1912 96 Vienna. 1912 149 Buenos Aires ... Copenhagen 1912 98 Cologne 1912 152 1912 156 Warsaw Rome 1912 101 1912 157 1912 102 Madrid Milan 163 Frankfort-on-Maine 1912 102 Breslau 1912 Brussels ... 102 1912 166 Hobart 1914 Paris 1912 103 Prague 1911 172 1912 105 Rio de Janeiro 1912 174 Edinburgh Christiania 1912 108 Trieste ... 1912 184 ... ••• • • • • • • 185 Toronto 1911 114 Bucharest 1912 ... • • • Dresden 116 Moscow (excl. of Found-1912 ... 119 ling Hospital.) 1911 241 Lyons 1911 242 Glasgow 1912 124 Montreal ... 1911 ...

(a) Number of deaths under 1 year per 1000 births registered.

Petrograd...

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1912

(iv.) The Effect of Infantile Mortality on Birth Rate. It has been contended by certain investigators that the birth-rate question is intimately related to that of infantile mortality, and that in many cases a declining birth rate may be to a large extent accounted for by a decline in the infantile death rate, since, in the case in which an infant has survived, the period elapsing before the birth of the next child is likely to be longer than in the case in which the infant has died. It may indeed be readily admitted that in any community the birth rate may be affected in a definite way by variations of infantile mortality, but careful investigation of the question serves to shew that, whether considered from the theoretical aspect with a view to determining the maximum and the probable effects which a given change in the rate of infantile mortality would produce in the birth rate, or from the practical point of view by observing the fluctuations in the birth rates of various countries which have been collateral with changes in their rates of infantile mortality, there is little ground for the contention that the rate of infantile mortality is an important factor in determining the variations in the birth rate. One calculation which has been made on the basis of normal Australian conditions indicates that the maximum effect of increasing the rate of infantile mortality 100 per cent. would, in the absence of other disturbing causes, be to increase the birth rate by only 31 per cent., whilst the probable effect would be considerably less than this. In other words, the maximum effect of an increase in the rate of infantile mortality from 100 to 200 per 1000 births would be to increase the birth rate from say 30 to 31 per 1000 of population. It may be noted too, that although in some countries an increase in birth-rate accompanies an increase in the rate of infantile mortality, in others the birth rate would appear to be quite unaffected by such an increase, while in the case of England and Wales, Scotland, and Ireland, the tendency apparently exhibited is for an increase in the rate of infantile mortality to be associated with a decrease in the birth rate. The conclusion which these results appear to warrant is that although infantile mortality undoubtedly tends on the whole to increase the birth rate, the practical effect produced is so slight that the existence of such a relation may in any instance be quite masked by more important causes of variation.

8. Deaths in Age-Groups, 1904 to 1914.—A distribution into age-groups has been made of the 516,467 deaths which occurred in the Commonwealth from 1904 to 1914, and the results are tabulated for each State. It is, however, sufficient here to shew the results for the Commonwealth as a whole, which are as follows:—

DEADING IN	ACE CROURG	COMMONWELLMIN	10044-1014
DEALDS IN	AUE-UKUUPS.	COMMONWEALTH.	1904 to 1914.

Ages.	Males.	Females.	Total.	Percentage of Total Males.	Percentage of Total Females.	Percentage of Total
Under 1 year 1 year and under 5 5 years and under 20 20 years and under 40 40 years and under 60 60 years and under 65 65 years and over Age not stated	16,495 16,344 39,070 62,311 17,286 90,126	42,934 14,810 14,872 34,883 36,317 10,477 65,127 114	98,176 31,305 30,716 73,953 98,628 27,763 155,253 673	18.57 5.54 5.50 13.14 20.95 5.81 30.30 0.19	19.60 6.76 6.56 15.93 16.58 4.78 29.74 0.05	19.02 6.07 5.96 14.33 19.11 5.38 30.00 0.13
Total	. 297,433	219,034	516,467	100.00	100.00	100.00

9. Deaths at Single Ages and in Age-Groups, 1914.—The 51,720 deaths which were registered in the Commonwealth in the year 1914 will be found tabulated under single years, and in groups of five years for each State and Territory, in "Bulletin No.

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32, Commonwealth Demography, 1914." It has been thought advisable to tabulate the deaths during the first two years of life in greater detail. The first month has, therefore, been shewn in weeks, and the twenty-three months up to the end of the second year in months. This tabulation shews a great number of children dying during the first week, the number gradually diminishing towards the end of the second year. The particulars relating to the Commonwealth are given in the following table:—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS, 1914,

COMMONWEALTH.

Ages.	Males.	Females.	Total.	Ages.	Males.	Females.	Total.
Under 1 week 1 week and under 2 2 weeks , , , 3 3 4	1,841 366 220 202	1,289 254 152 131	3,130 620 372 333	10 years 11 12 13 14	70 74 63 82 82	43 55 54 50 75	129
Total under one month	2,629	1,826	4,455	Total 10 years and under 15	371	277	648
1 month and under 2 2 months , , , 3 3 , , , , 4 4 , 5 5 6 6 7 7 8 8 9 9 , , 10 10 11 11 12	451 399 327 307 267 265 201 221 193 149 173	311 291 285 267 243 222 204 156 179 175	762 690 612 574 510 487 405 377 372 324 293	15 years 16 17 18 19 Total 15 years and under 20	90 94 113 115 152 564	78 76 73 83 112 422	
Total under 1 year	5,582	4,279	9,861	20 years 21 ,, 22 , 23 ,,	164 168 197 169	126 134 140 176	290 302 337 345
12 months and under 13 14 14 15 15 16	294 83 91 82	229 70 67 87	523 153 158 169 116	Total 20 years and under 25	886	749	1,635
16 17 18 18 18 19 19 20 20 21 21 22 22 22 23 24	63 40 83 50 29 35 30 29	53 44 49 42 36 37 31 29	92 65 72 61 58	25 years 26 27 28 29 ,,	191 213 196 221 213	182 184 161 194 161	373 397 357 415 374
Total under 2 years	6,491	5.053	11,544	Total 25 years and under 30	1,034	882	1,916
2 years 3 , 4 ,	387 241 158	29S 212 183	685 453 341	30 years 31 32 33 34 .,	232 121 213 184 210	163 132 178 168 178	395 253 391 352 388
Total under 5 years	7,277	5,746	13,023	Total 30 years and under 35	960	819	1,779
5 years 6	128 108 100, 112 107	139 125 82 96 06	267 233 182 208 173	35 years 36 ,, 37 , 38 , 39 ,,	242 214 242 251 181	155 177 149 186 162	397 391 391 437 343
Total 5 years and under 10	555	508	1,063	Total 35 years and under 40	1,130	829	1,959

DEATHS AT SINGLE AGES AND IN AGE-GROUPS, 1914-Continued.

			Ages.		Males.	Females.	Total.	Ages.	Males.	Females.	Total,
	42	ars 			280 193 245 266 253	154 151 181 167 164	434 344 426 433 417	75 years 76 77 78 79	450 382 386 443 338	349 333 293 335 327	799 715 679 778 665
	Tot	al 40	years and un	der 45	1,237	817	2,054	Total 75 years and under 80	1,999	1.637	3,636
	477	ars 	 		330 314 278 327 350	179 169 177 207 196	509 493 455 534 546	80 years 81 , 82 , 83 , 84 ,	423 319 347 280 284	352 238 278 239 257	775 557 625 519 541
	Tot	al 45	years and un	der 50	1,599	928	2,527	Total 80 years and under 85	1,653	1,364	3,017
	50 ye 51 52 53 54	ars 	 		430 285 379 360 390	207 155 207 201 231	637 440 586 561 621	85 years 86 , 87 , 88 , 89 ,	222 198 152 142 95	214 150 146 129 80	436 348 298 271 175
٠	Tot	al 50	years and un	der 55	1,844	1,001	2,845	Total 85 years and under 90	809	719	1,528
	57 58	ars	•••	•••	363 382 403 397 321	201 228 229 212 194	564 610 632 609 515	90 years 91 92 93 94	80 32 49 30 27	88 47 38 32 37	168 79 87 62 64
	Tot	al 55 ;	years and un	der 60	1,866	1,064	2,930	Total 90 years and under 95	218	242	460
	62 63	ars	 	 	453 257 334 384 373	219 144 203 244 228	672 401 537 628 601	95 years 96 97 98 99	10 11 7 3 3	28 11 8 5	38 22 15 8 11
	Tot	al 60 ;	years and un	der 65	1,801	1,038	2,839	Total 95 yrs. and under 100	34	60	94
•	67 68	ars " "		; 	471 311 351 325 359	271 228 234 268 266	742 539 585 653 625	100 years 101 102 104 106 ,,	1 1 	4 2 1 1 1	8 2 2 2
	Tot	al 65 :	years and un	der 70	1,877	1,267	3,144	Total 100 years and over	6	9	15
	73	ars 	 		463 326 425 431	313 219 308 306	776 545 733 737	Age not stated	39	13	52
_	74 Tot	 al 70 :	years and un	 der 75	2,076	348 1,494	3,570	Total all ages	29,835	21,885	51,720

The following tables shew the death rate per 1000 living at each age for the three years 1910, 1911 and 1912, viz., the Census year 1911, and the years immediately preceding and following. The Northern Territory is included with South Australia, and the Federal Territory with New South Wales:—

DEATHS.

AVERAGE ANNUAL DEATH RATES PER 1000 LIVING IN VARIOUS AGE-GROUPS, 1910 to 1912.

MALES.

		1).	IALES.				
Age Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
0 to 4 years	. 25.40	24.71	23.30	21.30	28.44	24.65	24.71
5,, 9,,	. 2.11	2.39	2.39	1.85	2.61	2.53	2.26
10 ,, 14 ,,	1.75	1.69	1.74	1.40	2.16	1.70	1.72
15 ,, 19 ,,		2.41		2.43	2.86	2.59	2.52
20 ,, 24 ,,		3.27	4.83	3.00	5.17	3.57	3.65
25 ,, 29 ,,		4.13	5.57	3.57	5.86	4.49	4.35
30 ,, 34 ,,	4.90	4.83		5.40	6.75	3.77	5.20
35 ,, 39 ,, .		6.31		7.15	8.41	6.28	6.68
40 ,, 44 ,,		8.26	9.65	8.31	10.37	6.17	8.58
45 ,, 49 ,, .		11.05	13.83	10.27	14.96	9.25	11.58
50 ,, 54 ,, .	14.78	15.33	17.77	13.02	17.66	14.08	15.36
55 ,, 59 ,, .	21.93	21.41	23.01	19.99	24.65	16.24	21.67
60 ,, 64 ,,		31.52	31.25	31.94	35.06	28.39	31.38
65 ,, 69 ,,		50.53	51.53	45.94	45.96	38.29	47.69
70 ,, 74 ,,		74.28	70.94	58.38	78.74	58.79	70.88
75 ,, 79 ,,		115.68	112.40	99.49	110.54	108.60	114.04
80 ,, 84 ,,	. 181.34	174.56	190.89	165.68	185.23	148.67	176.32
85 ,, 89 ,,		270.76	202.56	225.42	328.21	313.87	257.73
90 and over	. 375.35	365.88	272.73	279.57	321.43	465.61	357.11
			MALES.		,		
0 to 4 years	. 20.96	19.79	20.07	16.96	21.76	21.27	20.22
5 ,, 9 ,,	. 1.78	2.27	2.29	1.71	2.58	1.88	2.04
10 ,, 14 ,,	. 1.41	1.81	1.45	1.25	1.77	2.51	1.59
15 ,, 19 ,,		2.42	2.20	2.19	2.01	3.47	2.22
20 24	. 3.22	3.74	3.76	3.44	3.82	4.09	3.53
25 ,, 29 ,,	. 4.02	4.31	4.68	4.79	4.42	4.66	4.31
30 ,, 34 ,,	4.51	4.98	4.46	4.92	4.88	4.93	4.73
35 ,, 39 ,,	. 5.84	6.02	5.79	5.71	6.15	7.68	5.97
40 ,, 44 ,,	. 6.24	6.63	7.11	5.80	6.73	5.67	6.44
45,,49,,		8.05	9.07	7.91	8.40	7.02	7.98
50 ,, 54 ,,		11.30	11.73	9.72	11.82	8.76	11.07
55 ,, 59 ,,		15.55	14.13	12.63	14.18	15.80	14.60
60 ,, 64 ,,	. 21.69	22.27	21.64	20.54	20.44	19.50	21.60
6 5 ,, 69 ,,		36.48	34.69	35.01	34.59	35.09	36.47
70 ,, 74 ,,		58.36	57.82	48.28	54.52	55.11	56.13
75 ,, 79 ,,	. 97.62	98.27	86.11	91.32	92.45	93.30	95.91
80 ,, 84 ,,	. 154.31	157.19	138.33	137.97	144.14	150.77	151.89
85 ,, 89 ,,		225.65	200.82	202.17	186.67	254.45	208.59
90 and over	. 307.43	361.44	351.52	328.17	358.97	317.88	334.87
		PE	RSONS.				
0 to 4 years	23.21	22.29	21.72	19.16	25.15	23.00	22.50 "
5,, 9,,	1	2.33	2.34	1.78	2.60	2.21	2.15
10 ,, 14 ,, .	1	1.75	1.60	1.33		2.10	1.66
15 ,, 19 ,,		2.42	2.57	2.31		3.03	2.37
20 ,, 24 ,,	1 000	3.51	4.33	3.22	4.60	3.84	3.59
25 ,, 29 ,,	0.00	4.22	5.17	4.17	5.29	1.58	4.33
30 ,, 34 ,,	1	4.92	5.29	5.16	6.00	4.34	4.97
3 5 ,, 39 ,,	. 5.97	6.16	6.78	6.44	7.51	6.94	6.34
40 ,, 44 ,,	F 01	7.44	8.58	7.09		5.94	7.59
45 ,, 49 ,,	9.45	9.59	11.95	9.14	12.73	8.20	9.96
50 ,, 54 ,,	1	13.40	15.48	11.49	15.64	11.63	13.48
55 ,, 59 ,,		18.52	19.59	16.67	20.87	16.04	18.52
60 ,, 64 ,,		26.86	27.44	26.48	29.25	24.08	26.87
65 ,, 69 ,,	1	43.26	44.44	40.58	41.22	36.66	42.37
70 ,, 74 ,,	1	65.98	65.87	53.36	68.67	56.91	63.91
75 ,, 79 ,,	100 -0	107.11	101.89	95.17	103.30	100.66	105.58
80 ,, 84 ,,	1 300 30	171.29	166.15	150.82	170.12	149.75	164.97
85 ,, 89 ,,	0	248.40	201.72	211.72	266.67	284.83	232.64
90 and over		363.94	308.54		333.33	404.98	345.44
	., 3377.0	, 300.01	, 500.01	, 5551	, 555.56	, 102.00	1 320.22

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The tables shew a high death rate for children under five years of age, which rapidly diminishes until, at ages 10 to 14, a rate of 1.66 per 1000 is shewn, which is the lowest at any age. The rate then gradually rises with increasing age until, at the ages 90 and over, more than one-third die every year.

10. Deaths of Centenarians, 1914.—Particulars as to the fifteen persons who died in 1913, aged 100 years and upwards, are given in the following table. It must, of course, be understood that while the Registrars-General of the various States take the greatest care to have statements as to abnormally high ages verified as far as possible, no absolute reliance can be placed on the accuracy of the ages shewn, owing to the well-known tendency of very old people to overstate their ages. The fact must not be lost sight of in connection with this question, that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically only from 1874, the Act passed in 1836 having left many loop-holes open for those unwilling to register the births of their children.

DEATHS OF CENTENARIANS, 1914.—COMMONWEALTH.

м	A]	ы	C	S	

Age	Locality where Death occurred.	State.	Cause of Death		Occupation.	Birth- place.	Length of Residence in Common wealth.
Yrs 104 102 100 100 100 100	Riddell's Creek Latrobe Stroud Dùnolly Willunga New Norfolk	37 C XXI	Senility " Burns Cerebral Hæmorr Senility	 hage 	Ex-St Police Farmer Unspecified	India England	37 years Unspecified 84 years 58 ,, 66 ,, 70 ,,
	`	•	FEMALES.				
106 104 102 101 101 100 100 100 100	Romsey	Victoria West Aust. N.S.W West. Aust. N.S.W Victoria S. Australia	Diarrhea Senility " " Hypostatic Conges Pneum Senility			Scotland Ireland England Ireland England Unspecified England	63 80 84 40 70 96 Unspecified

11. Length of Residence in the Commonwealth of Persons who Died in 1914.—
The length of residence in the Commonwealth of all persons whose deaths were registered in the year 1914 has been tabulated for all the States, and a summary of the results is shewn below:—

LENGTH OF RESIDENCE IN COMMONWEALTH OF PERSONS WHO DIED IN 1914.

Lengt	h of Resid	ence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Reside	n the C'we nt under 1 1 year 2 years 3 ,, 4 ,, 5 ,, 6 ,, 7 ,, 9 ,, 10 to 14 y	year	16,964 232 196 200 159 104 79 69 45 37 23	13,816 89 102 97 74 48 34 33 12 16 10 76	30,780 321 298 297 233 152 113 102 57 53 33 297	Resident 25 to 29 years " 30 to 34 " " 35 to 39 " " 40 to 44 " " 45 to 49 " " 50 to 54 " " 55 to 59 " " 60 to 64 " " 65 yrs. & over Length of residence not stated	1,178 741 803 644 1,318 1,131 1,523 617	431 587 364 407 497 1,102 1,078 1,329 744 621	1,281 1,765 1,105 1,210 1,141 2,420 2,209 2,852 1,361 2,690
	15 to 19 20 to 24		217 415	81 237	298 352	Total	29,835	21.885	51,720

12. Birthplaces of Persons who Died in 1914.—In the following table are shewn the birthplaces of persons whose deaths were registered in 1914:—

BIRTHPLACES OF PERSONS WHO DIED IN 1914.

COMMONWEALTH.

Birthplace.	Males.	Females.	Total.	Birthplace	Males.	Females.	Total.
AUSTRALASIA—				Java	10		10
Commonwealth of			(Philippine Islands	6		6
Australia—				Syria	5	2	7
New South Wales			11,413	Other Asiatic Countries	22	2	24
Victoria	5,565 $1,742$	4,396 1,411	9,961 3,153	Countries			24
Queensland South Australia	1,742	1,430	3,217	AFRICA-			
Western Australia	648	507	1,155	Mauritius	9	3	12
Tasmania	1,023	843	1,866	Natal		ĭ	1
Northern Territory	10	5	15	S.Africa (undefined)	27	10	37
101010111 10111011				Other African Brit.			
	115	93	208	Possessions	1	1	2
New Zealand	119	93	208	Egypt	1		1
i				Other African			
EUROPE-				Countries	4	1	5
England		3,538	9,057				
Wales	141	71	212	AMERICA—	~ 0	10	
Scotland	1,619 2,574	1,048 $2,573$	$2,667 \\ 5,147$	Canada	52	12	64
Ireland Isle of Man	2,574	5	9,141	Jamaica Newfoundland	4		4 5
Other European	-			Newfoundland Other American	*	1	J
Brit'h Possessions	24	17	41	Brit. Possessions	1	1	2
Austria-Hungary	30		30	Argentine Republic	$\overline{2}$		2
Belgium	9	2	11	Brazil		2	2
Denmark	84	22	106	Chile	2	1	3
France	70	8	78	Peru		1	1
Germany	601	270	871	United States of			
Greece	23	2	25	America	80	25	105
Italy	84	10	94	Other American			
Netherlands	23	2	25	Countries	40	16	56
Norway	73	6	79 8	DOLINIBGIA			
Portugal Russia	8 73	22	95	POLYNESIA—	4		
~ .	14	2	16	Fiji Friendly Islands	1		4
Spain Sweden	126	11	137	Papua	1	"1	2
Switzerland	57	9	66	Other Polynesian	_	1	_
Other European			"	Brit. Possessions	5	١	5
Countries	6	2	8	New Caledonia	3	3	6
				New Hebrides	4		4
ASIA		}]	Samoa	1	1	2
British India	68	30	98	Other Polynesian			
Ceylon	6	3	9	Islands	2		2
Hong Kong	2		2	South Sea Islands			
Straits Settlements		1	10	(so described)	32	1	33
Other Asiatic British			6				
Possessions Afghanistan	6	ļ	1 1	At Sea	55	39	94
				1			
	Q	l	1 21	Not stated	795	10/	0.10
Arabia China	8 334	2	8 336	Not stated	725	194	919

13. Occupations of Male Persons who Died in 1914.—Information as to the occupations of the 29,835 males who died in the Commonwealth in 1914, is contained in the following statement:—

OCCUPATIONS OF MALES WHO DIED IN 1914.

COMMONWEALTH.

Occupation.	No. of Deaths.	Occupation.	No. of Deaths
CLASS I.—PROFESSIONAL.		Groceries and stimulants	157
0 10	124	Living animals	31
General Government	32	Leather, raw material	4
Local Government Defence	00	Wool and tallow	3
T 1 1	104	Hay, corn, etc	31
	105	Other vegetable matter	17
	103	Wood and coal	42
Charity Health	167	Stone, clay, glass	5
T 11	0.4	Gold, silver, and precious stones	2
•	11	Ironmongery	26
	1	Merchants	98
Civil and mechanical engineering,	H-C	Shopkeepers and assistants	201
architecture and surveying	1 100	Dealers and hawkers	129
Education	0.5	Agents and brokers	113
Fine arts	40	Clerks, bookkeepers, etc	567
Music	110	Commercial travellers and salesmen	176
Amusements	119	Others engaged in commercial pur-	
		suits	106
Total Professional	1,119	Speculators on chance events	15
CLASS II.—DOMESTIC.	}	Total Commercial	2,423
Hotelkeepers and assistants	280		
Others engaged in providing board	l l	CLASS IV.—TRANSPORT AND	
and lodging	1 00	COMMUNICATION.	\
House servants	159		
Coachmen and grooms	93	Railway traffic	427
Hairdressers	63	Tramway traffic	51
Laundrymen	. 13	Road traffic	538
Others engaged in domestic occu-		Sea and river traffic	591
pations	133	Postal service	78
-	1	Telegraph and telephone service	35
Total Domestic	810	Messengers, etc	12
zolał zoliosolo III III			
CLASS III.—COMMERCIAL.	ļ	Total Transport & Communication	1,732
Banking and finance	87		
Insurance and valuation		∬ .	}
Land and household property	10	CLASS V.—INDUSTRIAL.	
Property rights, n.e.i	1	Books and publications	133
Books, publications and advertising	37	Musical instruments	133
		Prints, pictures, and art materials	9
XXX () 3 3 1 13	2	Ornaments and small wares	15
Machines, tools, and implements	í	O 3	13
a	2	Danis	5
75 11 11	I ~	11 *** 1	37
	. 5	l	7
C1 . 1	1 -	1	123
Chemicals			102
	1	Carriages and vehicles Harness, saddlery, and leatherware	
Paper and stationery	1 05	u cracoess, sadulery, and leatherware	91
Paper and stationery Textile fabrics			
Paper and stationery Textile fabrics Dress	. 8	Ships, boats, and equipment	
Paper and stationery	8	Ships, boats, and equipment Furniture	107
Paper and stationery Textile fabrics Dress	. 8 4 245	Ships, boats, and equipment	60 107 40 5

OCCUPATIONS OF MALES WHO DIED IN 1914-Continued.

Occupation.		No. of Deaths,	Occupation.	No. of Deaths
INDUSTRIAL—Continued.		i	CLASS VI.—AGRICULTURAL, PAS-	
Textile fabrics		18	TORAL, MINING PURSUITS, ETC.	
Dress		369	Agricultural	2,820
Fibrous materials		16	5	821
Animal food		27	D	72
Vegetable food		195	Bees, fisheries and wild animals	132
Groceries and stimulants	• • • • • • • • • • • • • • • • • • • •	57	T	90
Animal matter	•••	58	Water conservation and supply	12
Workers in wood not elsew	horo	00	1 3.5	1,645
classed		26	Mines and quarries	1,040
Paper	•••	5	<u>.</u>	
Stone, clay, glass		67	m.,	F 500
Jewellery and precious stones		40	Total Primary Producers	5,592
Metals, other than gold and s			!	·
Gas, electric lighting, etc.	711101	58		
das, electric fighting, etc.		00	CLASS VII.—INDEFINITE.	
Buildings-			Independent means, having no spe-	Į
Builders		93	cific occupation	749
Stonemasons		91	Occupation unspecified	762
Bricklayers		119	Cocupation anspectace	
Slaters		4	•	
Carpenters		504	Total Indefinite	1,511
Plasterers		49	Total indennite	1 1,011
Painters and glaziers		188		i
Plumbers	•••	76	i	l I
Signwriters		12	CLASS VIII.—DEPENDENTS.	
Others	• • • •	4	OLASS VIII.—DEPENDENTS.	
Roads, railways, and earthwor	·ks	64	Dependent relatives (including per-	į
Disposal of the dead		14	sons under 20 years of age with	
Disposal of refuse		13	no specified occupation)	8,406
	•••		Supported by voluntary and State	i
Other industrial workers-			contributions	244
Manufacturers		30	-	l
Engineers, firemen		415		:
Contractors		163	Total Dependents	8,650
Labourers, undefined		4,082		
Others		25		
				1
Total Industrial	•••	7,998	Total Male Deaths	29,835

14. Index of Mortality.—The death rates, those for age-groups on pages 177 and 180 excepted, so far shewn are crude rates, i.e., they simply shew the number of deaths per thousand of mean population, without taking the age constitution of that population into consideration. It is, however, a well-known fact that the death rate and age constitution of a people are intimately related, thus, other conditions being equal, the death rate of a country will be lower if it contain a large percentage In order to have a comparison of the mortality of young people (not infants). of various countries on a uniform basis, so far as age constitution is concerned, the International Statistical Institute in its 1895 session recommended the universal adoption of the population of Sweden in five age-groups, as ascertained at the Census of 1890, as the standard population by which this "Index of Mortality," as distinguished from the crude death rate, should be ascertained. The calculation for 1914 is shewn below for each of the States and Territories and for the Commonwealth, the distribution of the mean population of 1914 into age-groups being in accordance with the distribution as found at the Census of 1911:-

INDEX OF MORTALITY, 1914.—(STATES AND COMMONWEALTH).

		-		•			•	
Age-Gi	roup.			Mean Population, 1914, distributed according to Results of Census of 1911.	Number of Deaths, 1914.	No. of Deaths per 1000 of Mean Population, 1914, in each Age-Group.	Age Distribution per 1000 of Standard Population.	Index of Mortality.
NEW SOUTH	H WALES			{				1
Under 1 year				50,940	3,723	73.09	25.5	1.86
1 year and under 20	•••			729,495	2,116	2.90	398.0	1.15
20 years ., 40 40 ,, ,, 60	•••	•••	•••	620,657	2,703	4.36 10.90	$269.6 \\ 192.3$	1.18 2.10
50 ., and upwards	•••			335,096 116,318	3,653 6,525	56.10	114.6	6.43
	Total			1,352,506	18,720	10.11	1,000.0	12.72
Vremo		•••	•••	1.392,500	10,720			12.72
Victo Under lyear				33,679	2,835	84.18	25.5	2.15
year and under 20	•••	•••	•••	547,937	1,771	3.23	398.0	1.29
0 years , 40	•••	•••		450.599	1.989	4.41	269.6	1.19
0 ,, ,, 60 0 ,, and upwards	•••	•••	•••	286,890 104,408	3,259 6,649	11.36	192.3	2.18
o " and upwards		•••	•••			63.68	114.6	7.30
	Total	•••	•••	1,423,513	16,503	11.59	1,000.0	14.11
QUEEN	BLAND.							1
Inder 1 year	•••	•••		18,251	1,273	69.75	25.5	1.78
year and under 20 Oyears 40	•••			276,491 221,134	901 1,076	3.26 4.87	398.0 269.6	1.30
10 ,, ., 60				119,897	1,416	11.81	192.3	1.31 2.27
30 , and upwards	•••	•••	•••	39,159	2,065	52.73	114.6	6.04
	Total			674,932	6,731	9.97	1,000.0	12.70
South Au	STRALIA.							i
Jnder 1 year	•••			11,331	978	86.31	25.5	2.20
year and under 20	***	• • • •	•••	172,302	463	2.69	398.0	1.07
30 years 40 40 60	•••	•••	•••	144.982	697	4.81	269.6	1.30
10 60 50 and upwards	•••			80,440 30,957	816 1,759	10.14 56.82	192.3 114.6	1.95 6.51
	Total			-				 -
W			•••	440,012	4,713	10.71	1,000.0	13.03
WESTERN A					•••			
Under 1 year 1 year and under 20	•••			8,647 118,464	630 366	72.86 3.09	25.5	1.86
20 years ,, 40	•••			118,774	568	4.78	398.0 269.6	1.23 1.29
40 ,, ., 60	•••	•••	•••	64,601	833	12.89	192.3	2.48
0 , and upwards	•••	•••	•••	12,976	646	49.78	114.6	5.70
	Total	***		323,462	3,043	9.41	1,000.0	12.56
TASMA	ANIA.							
Under 1 year	•••			5,576	430	77.12	25.5	1.97
l year and under 20 20 years "40	•••	•••		84,462	241	2.85	398.0	1.13
0 years , 40 10 , , 60	•••	•••		60,675	248	4.09	269.6	1.10
50 and upwards				35,261 12,398	350 649	9.93 52.35	192.3 114.6	1.91 6.00
•	Total			198,372	1,918	9.67	1,000.0	12.11
Northern T	ERRITOR	.▼.				-		
Under 1 year			,	30	9	00.01	05.5	0.00
year and under 20				33 690	3 4	90.91 5.80	25.5 398.0	2.32 2.31
20 years ,, 40	•••	•••	• • •	1,001	14	13.99	269.6	3.77
10 ,, ,, 60 30 ,, and upwards	•••	•••	•••	1,686	37	21.95	192.3	4.22
. and upwards		•••	•••	341		67.45	114.6	7.73
	Total	•••	•	3,751	81	21.59	1,000.0	20.35
FEDERAL T	ERRITOR	Y.						1
Under 1 year	•••			61		;;,,	25.5	
year and under 20 20 years , 40		•••	•••	1,085 813	2 1	1.84 1.23	398.0 269.6	0.73
20 years , 40 40 ,, , 60	•••			492	3	6.10	192.3	1.17
50 , and upwards	•••			195	5	25.64	114.6	2.94
				1		4.16	1,000.0	~ 15
	Total			2,646	11	4.16	1,000.0	5.17

INDEX OF MORTALITY, 1914.—(STATES AND COMMONWEALTH)—Continued.

Age-Group.			Mean Popula- tion, 1914, distributed according to Results of Census of 1911.	Number of Deaths, 1914.	No. of Deaths per 1000 of Mean Population, 1914, in each Age-Group.	Age Distribution per 1000 of Standard Population.	Index of Mortality
Commonweal	rH.						
Under l year			128,518	9,872	76.81	25.5	1.96
1 year and under 20			1,930,926	5,864	3.04	398.0	1.21
20 years , 40		•	1,618,635	7,296	4.51	269.6	1.22
40 ,, ,, 60			924,363	10,367	11.22	192.3	2.16
60 and upwards	• • • • • • • • • • • • • • • • • • • •	• • • •	316,752	18,321	57.84	114.6	6.63
Tota	ıl		4,919,194	51,720	10.51	1,000.0	13.18

Note.—The small number of persons whose ages were not ascertained at the 1911 Census have been proportionately distributed among the various age-groups, and the same plan has been followed in regard to the 52 persons who died in 1914, and whose ages were not stated in the certificates of death.

It will be seen that while Victoria had in 1914, apart from the territories, the highest crude death rate, and the highest index, the crude rate was lowest in Western Australia, and the index in Tasmania. The range of the indexes was below that of the crude rates, the latter varying from 9.41 per thousand in Western Australia to 11.59 per thousand in Victoria, a range of 2.18 per thousand, while the index varied from 12.11 per thousand in Tasmania to 14.11 per thousand in Victoria, a range of 2.00 per thousand.

For purposes of comparison with previous years the index of mortality is shewn in the following table for each of the eleven years 1904-1914:—

INDEX OF MORTALITY, 1904-1914 (STATES AND TERRITORIES).

Yes	ır.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Northern Territory.	Federal Territory.	Com - wealth.
1904	•••		14.46	12.89	13.45	15.49			ļ	14.11
1905	•••	13.23	14.80	13.72	13.49	14.17	12.95			13.94
1906	•••	12.91	15.26	12.44	13.78	15.84	14.10		•••	13.94
1907		13.66	14.55	13.52	13.12	14.94	14.10			13.97
1908		13.13	15.58	13.37	12.89	14.81	14.46	•••		14.10
1909		12.61	14.11	12.57	12.27	13.91	12.32	• •••	!	13.15
1910		12.48	14.15	12.60	12.50	13.48	13.62			13.17
1911		13.23	14.23	13.57	12.18	13.47	12.97	(a) 17.91	(b) 6.53	13.55
1912	•••	13.63	14.94	13.91	12.76	14.55	13.69	17.23	6.36	14.08
1913		13.61	13.50	13.25	13.25	12.58	13.54	20.17	6.13	13.47
1914	•••	12.72	14.11	12.70	13.03	12.56	12.11	20.35	5.17	13.18

(a) Included in South Australia prior to 1911. (b) Part of New South Wales prior to 1911.

A comparison of the above figures with the crude death rates given on a previous page shews that while the crude rate was highest in Victoria ten times in 11 years and once in Western Australia, the index was highest in Victoria seven times, in Western Australia three times, and in New South Wales once in the same period. South Australia had the lowest index five times, Queensland and Tasmania twice, and New South Wales and Western Australia, once each, while the crude rate was lowest four times in South Australia, three times in Queensland, twice in Tasmania, and twice in Western Australia. The high index in Victoria is due to the large proportion of persons over 60 years of age, and in Western Australia to the heavy mortality in the early period of life.

15. Monthly Variations in Death Rates.—(i.) General Death Rates. The annual death rates, corresponding to the number of deaths registered in each equalised month, have been calculated for the six years 1907-1912, and a series of diagrams shewing the results for each State and the Commonwealth as a whole appears on page 216 of this issue, distinguishing the rates for males, females, and persons. The curves shewing the male and female rate exhibit in each State a fairly parallel course,

irregularities being, however, more strongly marked in the case of the male curve. The minimum rates in New South Wales and Queensland fall within the autumn months, from March to May, while in Victoria, South Australia, Western Australia, and Tasmania they fall in the spring months, October and November. In no case is there, however, a very great difference between the rates in spring and in autumn, the figures for the Commonwealth being 10.19 per thousand in March, and 10.34 per thousand in October. The maximum rates in New South Wales, Victoria, and Tasmania are experienced in August, and in Queensland in September, with the rates for December and January as secondary maxima. In South Australia the maximum rate of 11.33 per thousand falls in January, the rate for August standing next with 10.80 per thousand. In Western Australia the maximum rate is found in May.

- (ii.) Infantile Death Rates. A similar series of diagrams, shewing the monthly variations in the infantile death rates, appears on page 217. With the exception of Western Australia, where the maximum occurs in May, the maxima are found in the summer months in every State. The rates gradually decrease from January to March, shewing in several States a slight increase in April, with a further diminution until July. In July and August the rates rise to some extent, to fall again until October or November. From that time a rapid rise takes place, until the maximum is reached in December or January. Tasmania, where the seasons are rather later than in the continental States, shews two distinct minima in May and November, with a summer maximum in February, and a fairly high rate in September. In Western Australia the rates are moderately high in December and January, and drop until March, to rise rapidly in April and May when the maximum is reached. From May to September there is a gradual decrease, with a quick rise from the latter month until December.
- 16. Causes of Death.—(i.) Information regarding the changes in the classification of causes of death will be found in previous editions of this Year Book (e.g., Year Book No. 5, pages 222 and 223). The statement will suffice, therefore, that the classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committee of Revision which met in 1909. The detailed classification groups causes of death under 189 different headings in fourteen categories, as follows:
 - i. General Diseases.
 - ii. Diseases of the Nervous System and Organs of Special Sense.
 - iii. Diseases of the Circulatory System.
 - iv. Diseases of the Respiratory System.
 - v. Diseases of the Digestive System.
- vi. Diseases of the Genito-urinary System and Adnexa.
- vii. Puerperal Condition.

- viii. Diseases of the Skin and Cellular Tissue.
 - ix. Diseases of the Organs of Locomo-
 - x. Malformations.
 - xi. Infancy.
- xii. Old Age.
- xiii. Violence.
- xiv. Ill-defined Diseases.
- (ii.) Compilation of Vital Statistics for 1907 and Subsequent Years in Commonwealth Bureau. The vital statistics of the Commonwealth from the year 1907 onward have been tabulated according to this classification in the Commonwealth Bureau, and the system is being employed in the majority of the State offices in the preparation of their monthly and quarterly bulletins of vital statistics.
- (iii.) Classification of Causes of Death, 1907 to 1914, according to Abridged International Classification. An abridged classification, which enumerates thirty-eight diseases and groups of diseases according to the revised classification, is in use in many European and American States, while the Commonwealth Statistics have been compiled on the detailed classification of 189 headings. A table has been compiled shewing the causes of death according to the abridged classification, so that the results may be compared with those of countries which use the abridged index.

The compilations for the years 1907 to 1914 will be found in full in "Bulletins Nos. 8, 14, 20, 25, 29, 30, 31, and 32 of Population and Vital Statistics"; here it will suffice to give the abridged classification under thirty-eight headings for the year, 1914 :-

CAUSES OF DEATH-COMMONWEALTH, 1914.

(a) MALES.

-			(4)	UIALIES	<u> </u>					
	Cause.	n.s.w	Vic.	Q'land	S.Aust.	W.Aus	Tas.	Nor. Ter.		
1	Typhoid Fever	169	72	89	38	39	7			414
2		100	1 12	65	90	1 33	i	}		414
		ļ _.			•••				•••	
	Malaria	3	1	9	•••	6	• • • •	1	•••	20
4		. 1	•••	•••		2				3
5	i Measles	4	60	2	4	1	1			72
€	Scarlet Fever	5	[1 2	1	1	1			10
7	Whooping Cough	48	40	23	17	5	5			138
5	Diphtheria and Croup	122		49	27	21	13			330
à	T., G.,	39	60	22	12	9	8	1	1	
	A -in Air Ole alone	i	1	i	1	9	0	ļ		152
						•••		• • • •	•••	
	Cholera Nostras	1	1		•••	•••	•••		•••	2
	Other Epidemic Diseases	40	22	27	12	12	•••	••••		113
13	Tuberculosis of the Lungs	745	539	213	153	147	49	7		1,853
14	Tuberculosis of the Men-	Ì	1	ł						1
	inges	54	47	8	13	5	3			130
15	Other forms of Tubercu-					_				
	losis :	- 58	53	10	10	5	3			139
16	Cancer and other Malig-	00	00	10	10	,		••••		100
10		700	570	004	3.771			_	- 1	1 000
	nant Tumours	720	573	264	171	98	70	5	1	1,902
	Simple Meningitis	148	154	54	41	34	20	•••		451
18	Congestion, Hæmorrhage	İ	1.		} i			1		
	and Softening of Brain	425	365	164	100	52	37			1,143
19	Organic Diseases of the] .					
	Heart	969	895	403	250	139	85	7	1	2,749
20	Acute Bronchitis	97	.44	30	18	8	7	1		205
	Chronic Bronchitis	174	213	79	43	24	13	î		547
			1	1 .	, 1				•••	
		420	406	135	102	121	61	••••		1,245
25	Other Diseases of the Res			1				l		
	piratory System (Tuber-							- 1		
	culosis excepted)	350	428	143	70	68	45	2		1,106
24	Diseases of the Stomach									
	(Cancer excepted)	82	59	36	12	8	4	1		202
25	Diarrhœa & Enteritis(chil-					- 1	_ }		1	
	dren under 2 years only)	712	577	242	209	106	84			1,930
26	Appendicitis and Typhlitis	77	66	41	25	10	10		- 1	229
	Hernia, Intestinal Ob-		00	41	20	10	10	•••		225
4,		104	77	99	10	15	-	1	J	0.57
00				33	19	17	7]	257
	Cirrhosis of the Liver	93	89	35	11	19	5	••••	•••	252:
29	Nephritis and Bright's					1	Ì	1	ł	
	Disease	488	386	198	123	61	25	•••	•••	1,281
30	Non-cancerous Tumours				•				- 1	
	and other Diseases of		1		-	1	-		- 1	
	Female Genital Organs						1			
31	Puerperal Septicæmia		'''					***		***
-	(Puerperal Fever, Puer-					j		i	- 1	
	peral Peritonitis, Puer-							!	- 1	
	peral Phlebitis)		1			i		- 1	1	
90		•••	•••	•••	•••	•••	•••	•••	••••]	•••
32	Other Puerperal Accidents								- 1	
	of Pregnancy and Con-				Į.	,]	- }	l	
	finement	•••								
33	Congenital Debility and						1		1	
	Malformations	857	646	255	239	144	99	1	1	2,241
34	C 1 D 1111	835	786	202	191	109	93	9	3	2,228
	¥7° 3	946	535	436	212	234	86	9		2,458
	G · · · 1									
	Suicide	211	102	111	39	55	13	3	•••	534
37	Other Diseases	1,840	1,527	784	411	323	189	6	1	5,081
38	Unspecified or Ill-defined				1	1	1	- 1	-	
	Diseases	147	96	33	48	59	20	15		418
				-	- 1	1	1	1		
	-						-			
	Total—Males	10,984	9.017	4,132	2,621	1,942	1,063	69	7	29,835
	10001 110165	10,001	0,011	1,104	w,021	1,044	-,000	00	'	~0,000
				<u>-</u>						

CAUSES OF DEATH-COMMONWEALTH, 1914.

(b) FEMALES.

Cause.	N.S.W.	Vic.	Q'land,	S. A.	W.A.	Tas.	Nor. Ter.	Fed. Ter.	C'wlth.
1 Typhoid Fever	77	35	38	19	17	4			190
2 Typhus	:								
3 Malaria		1				• • •	1		2
4 Small-pox		•••				•••			
5 Measles	9	54	11	5	4	•••			83
6 Scarlet Fever	15	2		1		1		•••	19
7 Whooping Cough	76	51	20	22	11	2			182
8 Diphtheria and Croup	138	114	64	31	20	19		•••	386
9 Influenza	32	84	31	15	8	9			179
10 Asiatic Cholera		•••			•••	•••			
11 Cholera Nostras					ا	•••			
12 Other Epidemic Diseases	23	19	10	5	5	•••	1	• • • •	63
13 Tuberculosis of the Lungs	420	482	89	138	84	45		•••	1,258
14 Tuberculosis of the Meninges		31	2	11	1	7		• • • •	77 117
15 Other forms of Tuberculosis	30	45	13	12	9	8			111
16 Cancer and other Malignant		615	1775	199	65	76		1	1,773
Tumours 17 Simple Meningitis	642	615 111	175 46	36	26	23		1	361
18 Congestion, Hæmorrhage, &		111	40	30	20	20			301
Softening of the Brain		390	104	109	45	41	1	l	1,061
19 Organic Diseases of the Heart		810		222	73	82	2	1	2,087
20 Acute Bronchitis	89	32		18	8	11	_	1	184
21 Chronic Bronchitis	139	168		31	21	16		:::	412
22 Pneumonia	262	282		58	44	31			747
23 Other Diseases of the Res		1 202	1			01		1	
piratory System (Tuber		ļ			1	ì			
culosis excepted)	1	295	85	49	37	22		1	760
24 Diseases of the Stomach	1	į		1	1	1	1	Ì	Ì
(Cancer excepted)	. 70	54	26	9	4	3	·		166
25 Diarrhœa and Enteriti									
(children under 2 yrs only		454			90	58			1,576
26 Appendicitis and Typhlitis		38	17	15	10	3	·		145
27 Hernia, Intestinal Obstruc						Ι.			000
tions	. 71	- 63			15	4			203
28 Cirrhosis of the Liver	. 37	53	1	1	7	3		•••	846
29 Nephritis & Bright's Disease 30 Non-cancerous Tumours and		311	144	62	23	26			040
other Diseases of the	1	1	İ		ļ	1	1	-	1
Female Genital Organ	1	43	13	16	11	4	1		138
31 Puerperal Septicæmia (Puer		4.0	, 10	10	11	*	1		1
peral Fever, Puerpera		1	1	i	1	1		1	
Peritonitis, Puerpera		İ				1	1		1
Phlebitis)	. 86	55	28	28	10	8		1	215
32 Other Puerperal Accidents o		"		1 -	1				
Pregnancy& Confinemen		99	64	34	33	18	s		419
33 Congenital Debility and Mal		1			1	1			
formations	1 000	451	214	137	106	74	i		1,619
34 Senile Debility	. 615	784	159	200	56	87	1		1,902
35 Violence		183			51	22	1	\	663
36 Suicide		24			-				109
37 Other Diseases		1,196	497	296	187	136	3 3	1	3,589
38 Unspecified or Ill-define		1		1		.			000
Diseases	. 99	68	12	20	18	12	2 2		226
•		-	_	-	-l		_	_	-
Matal Homelin	7 700	7 400	0 500	000	1 10	١ ٫؞.	. ,,		01 005
Total—Females	7,736	7,486	2,599	2,092	1,10	1 855	12	4	21,885
	1		1	ŧ	1	1.	1	į.	1

CAUSES OF DEATH—COMMONWEALTH, 1914. (c) TOTAL, MALES AND FEMALES.

Nor. Fed. Com'-N.S W. Cause. Vic. Old. S.A. W.A. Tas. Ter. Ter. wealth 1 Typhoid Fever 246 107 127 57 56 11 604 2 Typhus ••• 3 2 9 2 22 3 Malaria 6 Small-pox 1 3 2 ... 5 Measles 13 114 13 9 5 155 1 6 Scarlet Fever 20 2 2 Q 1 ... 29 ... 124 91 43 39 Whooping Cough 16 7 320 ٠. ••• ••• 260 8 Diphtheria and Croup 212 113 58 41 32 716 ... 9 Influenza 71 144 53 27 17 17 1 331 1 10 Asiatic Cholera ... •••. 2 11 Cholera Nostras 1 ٠.. 12 Other Epidemic Diseases ... 63 37 17 41 17 1 176 ... 13 Tuberculosis of the Lungs 1,021 302 1,165 291 231 94 7 3,111 ... 14 Tuberculosis of the Meninges 24 79 78 10 207 6 10 15 Other forms of Tuberculosis 88 98 23 22 14 11 256 16 Cancer and other Malignant 1,362 Tumours 1,188 439 370 163 146 5 3,675 267 17 Simple Meningitis 265 100 77 812 60 43 ... 18 Congestion, Hæmorrhage, & 268 Softening of the Brain .. 797 755 209 97 2,204 78 1,705 4,836 19 Organic Diseases of Heart 1,610 659 472 212 167 9 2 76 20 Acute Bronchitis 186 56 36 16 18 1 389 ••• 21 Chronic Bronchitis 313 381 116 74 45 29 1 959 ... 22 Pneumonia 682 688 205 160 92 1,992 165 23 Other Diseases of the Respiratory System (Phthisis 621 723 228 119 105 67 2 1,866 excepted) 1 24 Diseases of the Stomach (Cancer excepted) 152 113 62 21 7 368 12 1 25 Diarrhœa and Enteritis 1,308 1,031 (children under 2 yrs. only) 428 3,506 401 196 142 26 Appendicitis and Typhlitis . 139 104 58 20 374 40 13 ... 27 Hernia, Intestinal Obstruc-140 61 460 tions ... 175 32 41 11 28 Cirrhosis of the Liver 130 142 53 380 21 26 8 ... 29 Nephritis & Bright's Disease 768 697 2,127 342185 84 51 30 Non-cancerous Tumours & other Diseases of the Female Genital Organs ... 50 43 13 138 16 11 4 1 31 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis) 86 55 28 28 10 8 215 32 Other Puerperal Accidents of Pregnancy and Confinement 177 93 64 34 33 18 419 33 Congenital Debility and Malformations 1,494 1,097 469 376 250 173 3,860 ٠. 1,450 10 34 Senile Debility 1,570 361 391 165 180 3 4,130 1,191 3,121 Violence 718 535 274 285 108 10 36 Suicide ... 269 126 128 47 57 13 3 643 .. 37 Other Diseases 2,723 1,281 2 8,670 3,113 707 510 325 9 38 Unspecified or Ill-defined 246 Diseases 159 45 68 77 32 17 644 Total—Males and Females 18,720 | 16,503 | 6,731 | 4,713 | 3,043 | 1,918 81 11 51,720

⁽d) The classification for the years 1907 to 1913 is shewn for the Commonwealth in the following table, and for purposes of comparison the figures for the year 1914 have

been repeated from the preceding table. Male and female deaths for 1905, 1906, and 1907 are shewn separately on page 237 of the second issue, those for 1908 on pages 211 and 212 of the third issue, for 1909 on pages 200 and 201 of the fourth issue, for 1910 on pages 202 and 203 of the fifth issue, for 1911 on pages 224 and 225 of the sixth issue, for 1912 on pages 182 and 183 of the eighth issue of this Year Book; while the figures for 1914 are given on pages 188 and 189.

The figures for 1907, 1908, and 1909, which were compiled under thirty-five headings, have here been distributed among the corresponding headings of the revised classification.

CAUSES OF DEATH-COMMONWEALTH, 1907 to 1914.

MALES	AND	FEMALES	:

	Cause.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.
1	Typhoid Fever	564	736	661	648	488	619	576	604
2	Typhus								l
3	Malaria	42	52	59		19	17	24	22
4	Small-pox			1	4	1		1	3
5	Measles	147	125	31	124	206	519	186	155
6	Scarlet Fever	37	63	74	58	24	41	39	29
7	Whooping Cough	1,070	249	257	476	291	301	560	320
	Diphtheria and Croup	403	421	435	555	696	754	808	716
	Influenza	902	588	326	324	447	386	341	331
-	Asiatic Cholera	•••			•••				
	Cholera Nostras	5	4	1	1				_
	Other Epidemic Diseases	276			184				
	Tuberculosis of the Lungs	3,206							
	Tuberculosis of the Meninges		205						
	Other forms of Tuberculosis	415	352	332				1	
	Cancer & other Mal. Tumours	, ,		3,112					
	Simple Meningitis	648	676	616	567	636	749	753	812
18	Congestion, Hæmorrhage,								
	and Softening of the Brain		1,867	1,665					2,204
	Organic Diseases of the Heart	-,	4,066						
	Acute Bronchitis	514	412	422	420		460		389
	Chronic Bronchitis	844	818		859	1 '	1,053		959
	Pneumonia	1,788	1,871	1,752	1,612	1,869	2,107	1,966	1,992
25	Other Diseases of the Respir.	1 000	1 500	1 505	7 544	1 050	1 000	1 010	1 000
0.4	System (Tuberculosis ex.)	1,689	1,569	1,565	1,544	1,872	1,863	1,812	1,866
24	Diseases of the Stomach	004	900	070	297	370	450	4.45	000
05	(Cancer excepted) Diarrhœa & Enteritis (Chil-	334	308	272	297	370	457	447	368
20	dren under two years only)	0.700	3,236	2,803	3,145	2,462	3,248	3,176	9 506
96	Appendicitis and Typhlitis			344	315		347	364	3,506 374
	Hernia, Intest. Obstructions	305 411	293 389	396	398	439	463	486	460
	Cirrhosis of the Liver	325	362	331	368	385	426	365	380
	Nephritis & Bright's Disease	1,760	1,864	1,799	1,771	1,951	2,188	2,211	2,127
	Non - cancerous Tumours	1,700	1,004	1,799	1,111	1,501	2,100	2,211	2,121
00	and other Diseases of the								
	Female Genital Organs	128	159	130	149	120	145	153	138
31	Puerperal Septicæmia (Puer.	120	100	100		120	110	100	100
01	Fever, Periton'ts, Phleb'ts)	179	202	201	218	209	231	235	215
32	Other Puerperal Accidents of	113	202	201	210	203	~01	200	210
-	Pregnancy & Confinement	435	404	376	373	406	413	428	419
33	Congenital Debility, etc	3,038	2,973	2,905	3,221	3,142	3,611	3,823	3,860
	Senile Debility	3,136	3,466	3,194	3,353		4,124	4,116	4,130
	Violence	2,679	2,922	2,664	2,738	3,018	3,237	3,168	3,121
	Suicide	461	497	495	516	544	631	647	643
	Other Diseases	6,677	7,417	7,419	7,795	7,652	8,300	8,241	8,670
38	Unspec. or Ill-defined Dis's.	1.275	1,262	1,087	598	460	590	614	644
	٥								
	Total	45,305	46,426	44,172	45,590	47,869	52,177	51,789	51,720
				<u>'</u>		<u>' '</u>			

17. Certification of Deaths.—Information was obtained in 1914 as to the persons by whom the 51,720 deaths which occurred in the Commonwealth were certified. The result of the enquiry shews that approximately 88.8 per cent. (in 1910, 88.1 per cent., in 1911, 88.2 per cent., in 1912, 88.1 per cent. and in 1913, 88.7 per cent.) were certified by medical practitioners, and 10.7 per cent. (in 1910, 11.1 per cent., in 1911, 10.9 per cent., in 1912, 10.9 per cent., and in 1913, 10.8 per cent.) by coroners after inquests, or magisterial enquiries, while in 0.5 per cent. (in 1910, 0.8 per cent., in 1911, 0.9 per cent., in 1912, 1.0 per cent., and in 1913, 0.5 per cent.) of the cases there was either no certificate given, or particulars were not forthcoming. The results are shewn in detail in Bulletin No. 32; a short summary will therefore suffice here:—

Death Certified by— N.S.W. Victoria. Q'land. S. Aust. W. Aust. Tas. N.T. Fed. C'wlth.

6,237

343

151

6.731

4,296

4,713

411

6

2,689

3,043

282

72

1,746

1.918

155 46 4

17

35 | 7

81 | 11

45,908

51,720

5,535

277

16,363

18,720

2,327

30

Medical practitioner

Not certified or not

Total Deaths ...

Coroner

stated ...

14,535

1,967

16,503

1

CERTIFICATION OF DEATHS, COMMONWEALTH, 1914.

Of the cases certified by coroners, violent deaths numbered 2814, ill-defined causes 320, organic heart disease 494, senile decay 355, congenital debility 165, cerebral hæmorrhage and apoplexy 140, pneumonia 132, tuberculosis of lungs 95, Bright's disease 83, infantile diarrhæa and enteritis, 74, infantile convulsions 51, diseases of arteries, aneurysms, etc. 50, acute and chronic alcoholism 45, other diseases peculiar to early infancy 40, diarrhæa and enteritis of adults and children over 2, 35, epilepsy 31, bronchopneumonia, 29, hernia and intestinal obstruction, 25; a total of 4978 out of 5535.

Of uncertified causes of death, violent deaths numbered 68, senile debility 41, ill-defined causes 22, infantile convulsions 19, congenital debility 37; a total of 187 out of 277.

- 18. Deaths from Special Causes.—The table on p. 191 furnishes comparisons for the last eight years only, and comparisons will, therefore, be restricted to that period.
- (i.) Typhoid Fever. Deaths from typhoid fever were more numerous in 1908 than in 1907, numbering 736, against 564 in 1907. In 1909 the number fell to 661, in 1910, to 648, and to 488 in 1911. In 1912 the number increased to 619, and fell to 576 in 1913 increasing again to 604 in 1914, of which 246 occurred in New South Wales, 107 in Victoria, 127 in Queensland, 57 in South Australia, 56 in Western Australia, and 11 in Tasmania.
 - (ii.) Typhus. No deaths from typhus have been registered from 1907 to 1914.
- (iii.) Malaria. Deaths from malarial diseases are practically confined to the tropical districts of Northern Queensland and Western Australia, and to the Northern Territory, 9 out of 22 deaths registered in 1914 having occurred in Queensland, 6 in Western Australia, and 2 in the Northern Territory.
- (iv.) Small-pox. No deaths from small-pox occurred during the two years 1907 and 1908, but in 1909 one death was registered in Western Australia. In 1910 one death was registered in New South Wales, and three in Victoria, and in 1911, only one death occurred in New South Wales. No deaths were registered in 1912, but in 1913 one death occurred in New South Wales, and in 1914 one death in New South Wales and 2 in Western Australia.

- (v.) Measles. No serious epidemic of measles has occurred for several years; the deaths in 1908 were less numerous than in 1907, numbering 125, against 147. In 1909 the deaths numbered 31, while 124 were registered in 1910, and 206 in 1911. In 1912 New South Wales experienced a slight epidemic, and was responsible for 352 deaths out of 519 registered. In 1913 the number of deaths fell to 186, and in 1914 to 155, of which 114 occurred in Victoria, while the remainder were fairly evenly distributed among the other five States.
- (vi.) Scarlet Fever. 29 deaths were registered in 1914, distributed over all six States, with a maximum of 20 in New South Wales.
- (vii.) Whooping Cough. A rather severe epidemic of whooping cough visited New South Wales in the early part of 1907, causing 592 deaths out of a total of 1070 registered in the Commonwealth. The deaths in 1908 fell to 249, with a slight increase to 257 in 1909, and a much greater increase to 476 in 1910. During 1911, however, only 291 deaths, and in 1912, 301 deaths were registered. In 1913 the number of deaths was 560, and in 1914, 320, of which 124 occurred in New South Wales, and 91 in Victoria.
- (viii.) Diphtheria and Croup. Deaths in 1907, 403; in 1908, 421; in 1909, 435; in 1910, 555; in 1911, 696, in 1912, 754, in 1913, 808, and in 1914, 716, of which 260 occurred in New South Wales, 212 in Victoria, 113 in Queensland, 58 in South Australia, 41 in Western Australia, and 32 in Tasmania.
- (ix.) Influenza. This disease was rather more prevalent in 1907 than in the two previous years, the deaths numbering 902, against 428 and 539. The deaths in 1908 were 588; in 1909, 326; 324 in 1910; in 1911, 447; in 1912, 386; in 1913, 341, and and in 1914, 331, of which 71 occurred in New South Wales, 144 in Victoria, 53 in Queensland, 27 in South Australia, 17 in Western Australia, 17 in Tasmania, 1 in the Northern Territory, and 1 in the Federal Territory.
- (x.) Asiatic Cholera. No cases of Asiatic cholera have ever occurred in the Commonwealth.
- (xi.) Cholera Nostras. Isolated cases only of choleriform diarrhea occurred in each of the seven years. Two deaths from this cause occurred during 1914.
- (xii.) Other Epidemic Diseases. The number of deaths registered under this heading was 276 in 1907, 268 in 1908, 221 in 1909, 184 in 1910, 295 in 1911, 224 in 1912, 185 in 1913, and 176 in 1914. The list in 1914 includes the following diseases:—Dysentery 93, erysipelas 62, leprosy 9, of which 8 occurred in Queensland, other epidemic diseases, 12. Prior to 1910 beri-beri was included in other epidemic diseases, but is now included in No. 37 of the revised classification. Of the 83 deaths from leprosy in the years 1907 to 1914, 66 occurred in Queensland. There were no deaths from plague in the Commonwealth during 1910, 1911, 1913, and 1914. In 1907, 48 deaths were registered; in 1908, 14 deaths; in 1909, 13 deaths, and in 1912, 1 death.
- (xiii.) Tuberculosis of the Lungs and Acute Miliary Tuberculosis. The deaths in 1914 numbered 3111, viz., 1853 males and 1258 females. The figures for the years 1907 to 1913 were 3206, 3409, 3169, 3059, 3164, 3146 and 3252 respectively. Of the deaths in 1914, 1165 occurred in New South Wales, 1021 in Victoria, 302 in Queensland, 291 in South Australia, 281 in Western Australia, 94 in Tasmania, and 7 in the Northern Territory. In accordance with the revised classification, deaths from tuberculosis of the larynx are now included with tuberculosis of the lungs, instead of in class 15 as in years prior to 1910. In the table on page 191, deaths from tuberculosis of the larynx have been included with tuberculosis of the lungs, so that the figures allow of correct comparison.
- (xiiia.) Tuberculosis of the Respiratory System. Of the various forms of tuberculosis prevalent in the Commonwealth, that which has probably attracted the most attention and has been the subject of the widest comment is phthisis, or tuberculosis of the lungs. The intimate relation, however, between tuberculosis of the lungs and that of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for various investigations concerning the age incidence and duration of this disease.

In the matter of the age incidence of death from tuberculosis of the respiratory system, diagrams were given in Year Books 2, 3, and 4, pp. 239, 217, and 206 respectively, shewing the frequency of deaths at successive ages in England and Wales during 1906 (Fig. 1), and in the Commonwealth during 1907 (Fig. 2). These were superseded by a fuller reference based on later results in Year Book No. 5, pp. 230, etc. The results given depended upon intercensal estimates of population, and these having now been adjusted to agree with the Census of 3rd April, 1911, some slight amendments of the figures in previous issues were made in Year Book No. 5. The figures are not now repeated.

(xiv.) Tuberculosis of the Meninges. The number of deaths registered in 1907 was 237; in 1908, 205; in 1909, 220; in 1910, 215; in 1911, 269; in 1912, 215; in 1913, 252; and in 1914, 207.

(xv.) Other Forms of Tuberculosis. Deaths numbered in 1907, 415; in 1908, 352; in 1909, 332; in 1910, 343; in 1911, 303; in 1912, 327; in 1913, 296, and in 1914, 256. The deaths in 1914 include the following forms of tuberculosis:—Abdominal tuberculosis, 108; Pott's disease, 41; white swellings, 20; tuberculosis of other organs, 35; and disseminated tuberculosis, 52. Tuberculosis of the larynx (see paragraph xiii.)

(xva.) All Forms of Tuberculosis. A complete tabulation of all the different tubercular diseases from which deaths occurred in 1914, will be found in Bulletin No. 32 of Population and Vital Statistics. Here it will suffice to show a few of the features of the tabulation mentioned. The total number of deaths due to tubercular diseases was 3574, viz., 2122 males and 1452 females. The following table shews the ages of these 3574 persons:—

AGES OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1914.
COMMONWEALTH.

	Ages.			Male.	Female	Total.		Ages	i.		Male.	Female	Total.
5 ye. 10 15 20 25 30 35 40	or 5 years and i		15 20 25 30 35 40 45	120 29 32 79 173 230 225 236 198	75 29 22 111 214 240 176 162 123	195 58 54 190 387 470 401 398 321	60 65 70 75 80	nspecified	" " over	60 65 70 75 80 	144 104 71 31 18 7 5	53 37 32 11 10 1	197 141 103 42 28 8 6
45 5 0	"	"	50 55	205 215	89 66	294 281		Total D	eaths	•••	2,122	1,452	3,574

A tabulation has been made of the occupations of males dying from tubercular diseases during 1914. A summary is here given:—

OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES, 1914.

COMMONWEALTH.

Occupation.	No. of Deaths	Occupation.		No. of Deaths
Professional class	102	Agricultural class		139
Domestic class	97	Pastoral class		45
Mercantile class	329	Working in mines and quarries		203
Engaged in transport and comi	nu-	Other primary producers		12
nication	168	Independent means		20
Manufacturing class	235	Dependents		245
Engaged in building and consti	cue-	Occupation not stated		42
tion	111			
Other industrial workers	374	Total male deaths	•••	2,122
	4	\ \		

The length of residence in the Commonwealth of persons who died from tubercular diseases has been tabulated for the year 1914 for all the Commonwealth States, with the following results:—

LENGTH OF RESIDENCE IN COMMONWEALTH, OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1914.

Length of Residence in Commonwealth.	Male.	Fem.	Total.	Length of Residence in Commonwealth.	Male.	Fem.	Total.
Born in Commonwealth Resident under 1 year 1 year 2 years 3 4 5 , & under 10	1,384 32 44 36 26 23 51	1,198 9 21 16 13 7	2,582 41 65 52 39 30 62	Resident 10 yrs. & under 15 15 20 20 over Length of resid ce not stated Total Deaths	33 25 350 118 2,122	7 6 133 31 1,452	40 31 483 149 3,574

There would not appear, therefore, to be much ground for the statement sometimes heard that many persons arrive in Australia in the last stages of consumption.

In order to shew the prevalence of tuberculosis in the several States, the death rates from tubercular diseases are shewn in the following table, together with the percentage which deaths from tuberculosis bear on the total number of deaths registered:—

DEATH RATES (a) FROM TUBERCULOSIS AND PERCENTAGE ON TOTAL DEATHS.

COMMONWEALTH, 1914.

State.		th Rates (a) f Fuberculosis.		Percen	Percentage on Total Deaths.					
State.	Males.	Females.	Total.	Males.	Females.	Total.				
New South Wales	0.88 0.90	0.54 0.78	0.72 0.84	7.80 7.09	6.14	7.12 7.25				
Victoria Queensland	0.63	0.76	0.50	5.59	4.00	4.98				
South Australia Western Australia	0.80 0.87	0.73 0.65	0.77 0.78	6.71 8.08	7.70 8.54	$7.15 \\ 8.25$				
Tasmania	0.54	0.63	0.58	5.17	7.01	6.00				
North. Territory Federal Territory	2.29	•••	1.87	10.14		8.64				
Commonwealth	0.83	0.61	0.73	7.11	6.63	6.91				

(a) Number of deaths from tuberculosis per 1000 of mean population.

The following table, which gives the death-rates from pulmonary and miliary tuberculosis per 1000 persons living for a number of countries, shews that the Commonwealth occupies a very enviable position when compared with most European countries.

PULMONARY AND MILIARY TUBERCULOSIS--DEATHS PER 1000 PERSONS LIVING.

Country.	Year.	Death Rate.	Country.	 	Year.	Death Rate.
Denmark New Zealand Commonwealth Ontario (Canada) Belgium England and Wales Netherlands Italy Scotland United Kingdom United States (Registration Area)	1914 1913 1912 1913 1913 1913 1913 1913 1913	0.48 0.61 0.63 0.73 0.93 1.00 1.06 1.07 1.08 1.08 1.20 1.28	German Empire Switzerland Prussia Sweden Japan Norway France Ircland Chile Finland Austria Serbia Hungary		1912 1912 1912 1911 1910 1912 1911 1913 1913 1912 1912 1912	1.31 1.43 1.46 1.55 1.64 1.75 1.80 1.91 2.44 2.61 2.83 3.24 3.49

(xvi.) Cancer and other Malignant Tumours. Deaths from cancer shew a tendency to increase, the figures for 1907 being 2940 deaths; for 1908, 2921 deaths; for 1909, 3112 deaths; 1910, 3205 deaths; 1911, 3321 deaths; 1912, 3537 deaths; 1913, 3603 deaths, and 1914, 3675 deaths. Of the deaths registered in 1914, 1902 were those of males, viz., 720 in New South Wales, 573 in Victoria, 264 in Queensland, 171 in South Australia, 98 in Western Australia, 70 in Tasmania, 5 in the Northern Territory and 1 in the Federal Territory; while 1773 were those of females, viz., 642 in New South Wales, 615 in Victoria, 175 in Queensland, 199 in South Australia, 65 in Western Australia, and 76 in Tasmania, and 1 in the Federal Territory. Bulletin No. 32 contains a complete tabulation of the various types of cancer and of the seat of the disease, of which the following is a summary:—

DEATHS	FROM	CANCER.	COMMONWEALTH.	1914.

		Se	at of Dise	ease.		•	Male.	Female	Total.
;; ;; ;; ;;	;; ;; ;;	the buccal cathe stomach at the peritoneu the female gethe breast the skin other organs	and liver m, the in mital org 	ntestines,	and the	rectum	 207 877 226 92 500	20 529 239 369 253 48 315	227 1,406 465 369 253 140 815
,,	т	otal Deaths				•	1,902	1,773	3,675

Of these deaths, 985 were described as cancer, 1701 as carcinoma, 176 as epithelioma, 442 as "malignant disease," 64 as "malignant tumour," 14 as neoplasm, 39 as "rodent ulcer," 235 as sarcoma, and 19 as scirrhus.

The ages of the 3675 persons who died from cancer in 1914, are shewn in the following table, from which it will be seen that while the ages below 35 are not by any means immune from the disease, the great majority of deaths occurred at ages from 35 upwards, the maximum being found in the age group 55 to 60.

AGES OF PERSONS WHO DIED FROM CANCER, 1914.

COMMONWEALTH.

	Ag	es.		Males.	Female	Total.		Ages.			Males.	Female	Total.
	er 15 years and	ears d under	20 25 30 35 40 45 50	12 3 9 19 20 49 68 149 216	18 3 13 16 54 68 132 184 207	30 6 22 35 74 117 200 333 423	75 ,	, , , s and	" " " " " "	60 65 70 75 80 85	258 258 264 258 187 90 41	225 221 212 174 127 74 44 1	483 479 476 432 314 164 85
50	"	"	99	216	207	423	Tot	al De	aths		1.902	1,773	3.67

A tabulation has been made of the occupations of the males who died from cancer, of which the following is a summary:—

OCCUPATIONS OF PERSONS WHO DIED FROM CANCER, 1914.

COMMONWEALTH.

Occupation.	No. of Deaths.	Occupation.	No. of Deaths.
Manufacturian along	. 53 . 203	Pastoral class Working in mines and quarries Other primary producers Independent means Dependents Occupation not stated	83 124 25 64 38 64
Engaged in building and construction Other industrial workers		Total Male Deaths	1,902

As the following tables shew, the total death rates from cancer are below those for tubercular diseases in Victoria and Western Australia only. The male death rates from cancer were, in 1914, in excess of those from tuberculosis in Queensland and Tasmania, while the female death rates were in excess of it in all the States with the exception of Western Australia. While the death rates from tuberculosis have a general tendency to decrease, the death rates from cancer have, on the contrary, shewn an increase in nearly every recent year. Thus for the whole Commonwealth in 1907 the death rate from tuberculosis was 0.22 per thousand greater than that from cancer, and in 1908 the excess amounted to 0.25 per thousand. In 1909 this decreased to 0.14; in 1910 to 0.10; in 1911 to 0.09; and in 1912 to 0.03 per thousand, while 1913 shews a slight increase in the excess to 0.04 per thousand. In 1914, while the death rate from tuberculosis decreased from 0.79 to 0.73 per thousand, the rate for cancer remained stationary, the result being that the rate for cancer exceeded that for tuberculosis by 0.02 per thousand.

DEATH RATES (a) FROM CANCER AND PERCENTAGE ON TOTAL DEATHS, 1914.

COMMONWEALTH.

	Death :	Rates (a) from	Cancer.	Percentage on Total Deaths.			
State.	Males.	Fenales.	Total.	Males.	Females.	Total	
New South Wales	0.74	0.74	0.74	6.55	8.43	7.33	
Victoria	0.80	0.87	0.83	6.35	8.22	7.20	
Queensland	0.72	0.56	0.65	6.39	6.73	6.52	
South Australia	0.77	0.86	0.82	6.52	9.03	7.64	
Western Australia	0.54	0.46	0.50	5.05	5.90	5.36	
Tasmania	0.68	0.79	0.74	6.59	8.89	7.61	
Northern Territ'y	1.64		1.33	7.25		6.17	
Federal Territory	0.61	0.98	0.74	14.29	25.00	18.18	
Commonwealth	0.74	0.75	0.75	6.38	8.10	7.11	

(a) Number of deaths from Cancer per 1000 of mean population.

The following table shows the death rate of the Commonwealth in comparison with other countries:—

CANCER-DEATH RATE IN VARIOUS COUNTRI	CANCER-DEATH	RATE IN	VARIOUS	COUNTRIES
--------------------------------------	--------------	---------	---------	-----------

Country	,	Year.	Rate.	Country.		Year.	Rate.
Chile		1912 1912	0.32 0.47	New Zealand		1913	0.80
Hungary Spain		1912	0.47	Austria Prussia	•••	$1912 \\ 1912$	0.81
Denmark		1912	0.61	German Empire		1912	0.90
Italy		1912	0.65	Ireland		1913	0.98
Japan		1910	0.65	United Kingdom		1913	1.04
Ontario (Canad	a)	1913	0.67	England and Wales		1913	1.05
Belgium		1912	0.71	Norway		1912	1.05
Commonwealth		1914	0.75	Netherlands		1913	1.09
United States	(Registra-		İ	Scotland		1913	1.09
tion Area)		1913	0.79	Sweden		1911	1.10
France	• •	1911	0.80	Switzerland		1912	1.27

The fifth issue of this Year Book contains, on pages 230, etc., a paper dealing, inter alia, with the incidence of cancer in the Commonwealth. The paper is not reprinted in the present issue.

(xvii.) Simple Meningitis. The table shews 648 deaths in 1907, 676 deaths in 1908, 616 deaths in 1909, 567 in 1910, 636 in 1911, 749 in 1912, 753 in 1913, and 812 in 1914.

(xviii.) Apoplexy, Hamorrhage, and Softening of the Brain. The deaths registered under this heading in 1907 were 1901, viz., 1038 males and 863 females; in 1908, 1867, viz., 991 males and 876 females; in 1909, 1665, viz., 869 males and 796 females; in 1910, 1704, viz., 864 males and 840 females; in 1911, 2178, viz., 1122 males and 1056 females; in 1912, 2176, viz., 1146 males and 1030 females; in 1913, 2281, viz., 1188 males and 1093 females, and in 1914, 2204, viz., 1143 males and 1061 females. The 1914 figures are made up of hæmorrhage of the brain and apoplexy—1102 males, 1017 females, total 2119; and softening of the brain—41 males, 44 females, total 85.

(xix.) Organic Diseases of the Heart. The number of deaths registered in 1914 was 4836, viz., 2749 males and 2087 females. Of these deaths, New South Wales was responsible for 969 males and 641 females; Victoria for 895 males and 310 females; Queensland for 403 males and 256 females; South Australia for 250 males and 222 females; Western Australia for 139 males and 73 females; Tasmania for 85 males and 82 females; the Northern Territory for 7 males and 2 females; and the Federal Territory for 1 male and 1 female. To the figures for 1914 correspond the following death rates and percentages to total deaths:—

DEATH RATES (a) FROM ORGANIC HEART DISEASE AND PERCENTAGE ON TOTAL DEATHS, COMMONWEALTH, 1914.

State.		Rates (a) from Heart Disease		Percentage on Total Deaths.			
50000	Males.	Females.	Total.	Males.	Females.	Total.	
New South Wales	1.00	0.73	0.87	8.82	8.29	8.60	
Victoria	1.26	1.14	1.23	9.93	10.82	10.33	
Queensland	1.04	0.83	0.98	9.75	9.85	9.79	
South Australia	1.33	1.01	1.07	9.54	10.61	10.01	
Western Australia	0.77	0.51	0.66	7.16	6.63	6.97	
Tasmania	0.83	0.86	0.84	7.53	9.59	8.71	
Northern Territory	2.29	2.88	2.40	10.14	16.67	11.11	
Federal Territory	0.61	0.98	0.74	14.29	25.00	18.18	
Commonwealth	1.07	0.88	0.98	9.21	9.54	9.35	

⁽a) Number of deaths from Organic Heart Disease per 1000 of mean population.

(xx.) Acute Bronchitis. The classification of causes of deaths requires deaths of persons under five years of age, which are merely ascribed to "bronchitis," to be classified under "acute bronchitis," and similarly certified deaths of older persons under "chronic bronchitis." This rule has been followed throughout in compiling the tables for 1907-1914, with the result that acute bronchitis is credited with 514 deaths in 1907, 412 deaths in 1908, 422 deaths in 1909, 420 deaths in 1910, 515 deaths in 1911, 460 deaths in 1912, 397 deaths in 1913, and 389 in 1914, viz., 205 males and 184 females.

(xxi.) Chronic Bronchitis. The adjustment mentioned in the preceding paragraph gives a total of 844 deaths in 1907, 818 deaths in 1908, 897 deaths in 1909, 859 in 1910, 1046 in 1911, 1053 in 1912, 991 in 1913, and 959 in 1914, viz., 547 males and 412 females

(xxii.) Pneumonia. The 1914 figures were 1245 males and 747 females, a total of 1992 deaths.

(xxiii.) Other Diseases of the Respiratory System. This head was established in 1910, the figures previously being included in "Other Diseases" (paragraph xxxvii.). Deaths in 1907 numbered 1689; in 1908, 1569; in 1909, 1565; in 1910, 1544; in 1911, 1872; in 1912, 1863; in 1913, 1812, and in 1914, 1866. The total for 1914 is made up as follows, viz.:—Diseases of the nasal fossæ, 1 death; diseases of the larynx, 60 deaths; diseases of the thyroid body, 18 deaths; broncho-pneumonia, 958 deaths; pleurisy, 203 deaths; pulmonary congestion and apoplexy, 197 deaths; gangrene of the lung, 18 deaths; asthma, 138 deaths; pulmonary emphysema, 15 deaths; fibroid phthisis, miners' complaint, 166 deaths; other diseases of the respiratory system (tuberculosis excepted), 92 deaths.

(xxiv.) Diseases of the Stomach (Cancer excepted). In 1914 this heading includes: Ulcer of the stomach, 68 males, 38 females; and other diseases of the stomach (cancer excepted), 134 males, 128 females; a total of 368 deaths. The corresponding figures for the years 1907 to 1913 were 334, 308, 272, 297, 370, 457, and 447 respectively.

(xxv.) Diarrhæa and Enteritis (Children under two years only). In 1907, deaths numbered 2733, viz., 1513 boys and 1220 girls; in 1908, 3236, viz., 1814 boys and 1422 girls; in 1909, 2803, viz., 1544 boys and 1259 girls; in 1910, 3145, viz., 1713 boys and 1432 girls; in 1911, 2462, viz., 1388 boys and 1074 girls; in 1912, 3248, viz., 1794 boys and 1454 girls; in 1913, 3176, viz., 1756 boys and 1420 girls; and in 1914, 3506, viz., 1930 boys and 1576 girls. The 1914 deaths were distributed amongst the six States as follows:—New South Wales, 712 males, 596 females, total 1308; Victoria, 577 males, 454 females, total 1031; Queensland, 242 males, 186 females, total 428; South Australia, 209 males, 192 females, total 401; Western Australia, 106 males, 90 females, total 196; and Tasmania, 84 males, 58 females, total 142.

The following are the death rates and percentages on total deaths due to infantile diarrhoea and enteritis in the States and Territories for the year 1914:—

DEATH RATES (a) FROM INFANTILE DIARRHŒA AND ENTERITIS, AND PERCENTAGE ON TOTAL DEATHS, COMMONWEALTH, 1914.

State.		tates (a) from I hea and Ente		Percentage on Total Deaths.			
Suave.	Males.	Females.	Total.	Males.	Females.	Total.	
New South Wales	0.73	0.68	0.71	6.48	7.70	6.99	
Victoria	0.81	0.64	0.72	6.40	6.06	6.25	
Queensland	0.66	0.60	0.63	5.86	7.16	6.36	
South Australia	0.95	0.88	0.91	7.97	9.18	8.51	
Western Australia	0.58	0.63	0.61	5.46	8.17	6.44	
Tasmania	0.82	0.61	0.72	7.90	6.78	7.40	
Northern Territory	•••	1 1				•••	
Federal Territory	•••		•••			•••	
Commonwealth	0.75	0.67	0.71	6.47	7.20	6.78	

As a large number of these deaths is directly due to improper feeding, it would be interesting to know the percentage of infants who were bottle-fed, but, unfortunately, no provision exists for the registration of this information. The number of deaths was larger than usual in 1908, particularly in Victoria, and to a lesser degree in South Australia and in Tasmania, owing to the phenomenal heat experienced in the early part of that year. The death rates for the three States named were 0.83, 0.61, and 0.71 per 1000 respectively in 1908, compared with 0.55, 0.45 and 0.48 in 1907, and with 0.50, 0.36 and 0.51 in 1911. The rate in 1912 was higher in every State, Tasmania excepted, than that for 1911, the increase being particularly noticeable in New South Wales, Queensland, and Western Australia, where the 1911 rate had been 0.57, 0.58, and 0.87 respectively, compared with 0.80, 0.78, and 1.09 for 1912. In 1913 all the States, with the exception of New South Wales and South Australia, experienced lower rates than in 1912, and in 1914 the rate fell in New South Wales and Western Australia, while it rose in Victoria, South Australia and Tasmania, and remained stationary in Queensland.

(xxvi.) Appendicitis and Typhlitis. Prior to 1910, deaths from these causes were included in Other Diseases, paragraph xxxvii. Deaths numbered 305 in 1907, 293 in 1908, 344 in 1909, 315 in 1910, 320 in 1911, 347 in 1912, 364 in 1913, and in 1914, 374, viz., 229 males and 145 females.

(xxvii.) Hernia, Intestinal Obstructions. The number of deaths has not varied much from year to year, the number registered in 1907 being 411; in 1908, 389; in 1909, 396; in 1910, 398; in 1911, 439; in 1912, 463; in 1913, 486; and in 1914, 460, viz., 257 males and 203 females.

(xxviii.) Cirrhosis of the Liver. The deaths in 1907 numbered 325; in 1908, 362; in 1909, 331; in 1910, 368; in 1911, 385; and in 1912, 426; in 1913, 365; and in 1914, 380, viz., 252 males and 128 females.

(xxix.) Nephritis and Bright's Disease. The number of deaths attributable to these diseases from year to year is a very large one. In 1907 there were registered the deaths of 1065 males and 695 females; in 1908, those of 1140 males and 724 females; in 1909, those of 1076 males and 723 females; in 1910, 1771, 1077 males and 694 females; in 1911, 1951, 1197 males and 754 females; in 1912, 2188, 1352 males and 836 females; in 1913, 2211, 1363 males and 846 females; and in 1914, 2127, 1281 males and 846 females. Of the deaths registered in 1914, those of 90 males and 66 females were ascribed to acute nephritis, and those of 1191 males and 780 females to Bright's Disease. New South Wales was responsible for 768 deaths; Victoria for 697; Queensland for 342; South Australia for 185; Western Australia for 84; and Tasmania for 51; making a total of 2127.

(xxx.) Non-cancerous Tumours and other Diseases of the Female Genital Organs. Deaths in 1907 numbered 128; in 1908, 159; in 1909, 130: in 1910, 149; in 1911, 120; in 1912, 145; in 1913, 153; and in 1914, 138. Included in the 138 deaths registered in 1914 were the following:—Non-puerperal uterine hæmorrhage, 4; non-cancerous uterine tumours, 36; other diseases of the uterus, 29; cysts and ovarian tumours, 34; salpingitis and other diseases of the female genital organs, 35.

(xxxi.) Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis). Deaths in 1907 were 179; in 1908, 202; in 1909, 201; in 1910, 218; in 1911, 209; in 1912, 231; in 1913, 235, and in 1914, 215.

(xxxii.) Other Puerperal Accidents of Pregnancy and Confinement. The deaths in 1907 numbered 435; in 1908, 404; in 1909, 376; in 1910, 373; in 1911, 406; in 1912, 413; in 1913, 428; and in 1914, 419. Included in the 419 deaths registered in 1914 were the following:—Accidents of pregnacy, 98; puerperal hæmorrhage, 75; other accidents of

childbirth, 108; puerperal albuminuria and convulsions, 111; puerperal phlegmasia alba dolens, embolus, sudden death, 22; death following childbirth, 5.

(xxxiia.) All Puerperal Diseases. The 634 deaths registered in 1914 under the two preceding headings will be found tabulated in "Bulletin No. 32; Commonwealth Demography" under various aspects. It will suffice to repeat here the following facts:—

Of the 634 mothers who died in childbirth during the year 1914, 593 were married and 41 were single. As the total number of nuptial confinements was 129,380, and of ex-nuptial confinements 7196, it follows that one in 218 of married mothers, and one in 175 of single mothers, died of puerperal disease, the general proportion being one in 215, as against one in 203 in 1913, one in 205 in 1912, one in 197 in 1911, one in 196 in 1910, one in 195 in 1909, one in 181 in 1908, and one in 178 in 1907.

The ages of the mothers who died varied from 14 to 47 years, and are shewn in the following table:—

Married Single Married Single Age at Death. Total. Age at Death Total. Women. Women. Women. Women. 14 years $\mathbf{2}$ years ,, ... ,, ,, .6 ... ٠,, ,, ,, ... ,, ,, ,, ,, ,, ••• . . . ,, ,, ,, ,, ,, ,, . . . ,, .. ,, ,, Total deaths

AGES OF MOTHERS WHO DIED IN CHILDBIRTH, COMMONWEALTH, 1914.

Of the 593 married women shewn in the above table, 157 died at their first confinement, 115 at their second, 72 at their third, 68 at their fourth, 55 at their fifth, 39 at their sixth, 27 at their seventh, 20 at their eighth, 14 at their ninth, 9 at their tenth, 5 at their eleventh, 6 at their twelfth, 2 at their fourteenth, and 2 at their sixteenth. In two cases no particulars are available. The total number of children of the 593 mothers was 1733.

Thirty of the mothers who died had been married less than one year, 85 between one and two years, 43 between two and three years, the duration of marriage ranging up to 27 years, apart from 19 cases in which the date of marriage cannot be stated. This tabulation will be found in detail, distinguishing the ages at marriage, in "Bulletin No. 32; Commonwealth Demography," as will a further tabulation shewing in combination

the duration of marriage and previous issue. These tables shew, for instance, that one mother, who had been married at the age of 18 years, died at the age of 45, in the 27th year of her marriage, at her tenth confinement.

(xxxiii) Congenital Debility and Malformations. The total deaths registered under these heads in 1914 were 3860, of whom 3802 were children under 1 year of age, inclusive of 3424 under three months. The figures include:—Malformations, 306 males, 224 females, total 530; and congenital debility, icterus, and sclerema of children under one year of age, 1935 males and 1395 females, total 3330; or a grand total of 3860. Of these deaths, 1494 were registered in New South Wales, viz., 857 males and 637 females; 1097 in Victoria, viz., 640 males and 451 females; 469 in Queensland, viz., 255 males and 214 females; 376 in South Australia, viz., 239 males and 137 females; 250 in Western Australia, viz., 144 males and 106 females; 173 in Tasmania, viz., 99 males and 74 females; and 1 male in the Northern Territory.

(xxxiv.) Senile Debility. The deaths ascribed to "old age" form a large group, and are slightly in excess of those due to infantile debility. In 1907 they numbered 3136, viz., 1721 males and 1415 females; in 1908, 3466, viz., 2027 males and 1439 females; in 1909, 3194, viz., 1829 males and 1365 females; in 1910, 3353, viz., 1905 males and 1448 females; in 1911, 3849, viz., 2225 males and 1624 females; in 1912, 4124, viz., 2362 males and 1762 females; in 1913, 4116, viz., 2302 males and 1814 females; and in 1914, 4130, viz., 2228 males and 1902 females. Of the deaths registered in 1914, 1450 occurred in New South Wales, viz., 835 males and 615 females; 1570 in Victoria, viz., 786 males and 784 females; 361 in Queensland, viz., 202 males and 159 females; 391 in South Australia, viz., 191 males and 200 females; 165 in Western Australia, viz., 109 males and 56 females; 180 in Tasmania, viz., 93 males and 87 females; 10 in the Northern Territory, viz., 9 males and 1 female; and 3 males in the Federal Territory.

Of the males whose death was described as due to senility, 3 were aged between 50 and 54; 13 between 55 and 59; 45 between 60 and 64; 100 between 65 and 69; 389 between 70 and 74; 516 between 75 and 79; 621 between 80 and 84; 376 between 85 and 89; 136 between 90 and 94; 21 between 95 and 99; while 4 were 100 years old and upwards; and of four the age was not stated.

Of the females, 1 was between 55 and 59; 27 were between 60 and 64; 78 between 65 and 69; 251 between 70 and 74; 458 between 75 and 79; 528 between 80 and 84; 365 between 85 and 89; 149 between 90 and 94; 38 between 95 and 99; while 6 were 100 years old and upwards; and of one the age was not stated.

(xxxv.) Violence. A very large number of deaths is due every year to external violence, and, as might be expected from the fact that their occupations expose them much more to accidents, males largely predominate. The figures quoted are exclusive of suicides, which have been treated as a separate group. Deaths ascribed to violence numbered in 1907, 2679, viz., 2038 males and 641 females; in 1908, 2922, viz., 2187 males and 735 females; in 1909, 2664, viz., 2050 males and 614 females; in 1910, 2738, viz., 2128 males and 610 females; in 1911, 3018, viz., 2323 males and 695 females; in 1912, 3237, viz., 2559 males and 678 females; in 1913, 3168, viz., 2503 males and 665 females; and in 1914, 3121, viz., 2458 males and 665 females. Of the deaths registered in 1914, those of 946 males and 245 females occurred in New South Wales; those of 535 males and 183 females in Victoria; those of 436 males and 99 females in Queensland; those of 212 males and 62 females in South Australia; those of 234 males and 51 females in Western Australia; those of 86 males and 22 females in Tasmania; and those of 9 males and one female in the Northern Territory.

The following table shews the various kinds of accidental deaths which occurred in 1914, distinguishing males and females:—

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DEATHS FROM VIOLENCE, COMMONWEA	ALTH.	. 1914.
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DEATHS.

Cause of Death.			Males.	Females.	Total
Poisoning by food			13	9	22
Venomous bites and stings	•••		16	5	21
Other acute poisonings	•••		60	23	83
Conflagration	•••		12	4	16
Burns (conflagration excepted)			139	180	319
Absorption of deleterious gase	s (conflag	ration		1	
excepted)	• •••		67	43	110
Accidental drowning	•••		480	75	555
Traumatism by firearms			83	9	92
Traumatism by cutting or pier	cing instru	ments	11		11
Traumatism by fall	•••		295	64	359
Traumatism in mines or quarr	ies	• • • •	106	[106
Traumatism by machines			30		30
Traumatism by other crushin	g (vehicles	, rail-		1	
ways, etc.)	•••		513	88	601
Injuries by animals			43	10	53
Starvation, thirst, fatigue			35	2	37
Excessive cold			4		4
Effects of heat			83	39	122
Lightning			14	1	15
Electricity (lightning excepted)		· 4		4
Homicide by firearms			13	13	26
Homicide by cutting or piercin	g instrum	ents	3	5	8
Homicide by other means			32	23	5 5
Fractures (cause not specified)	•••		110	40	150
Other external violence	•••	•••	292	30	322
Total Deaths			2,458	663	3,121

In every kind of violent death there was, therefore, an excess of males, with the exception of burning accidents, in which female deaths largely predominated.

The excessive heat of January, 1908, was responsible for an increase in the number of deaths caused by insolation, i.e., sunstroke and heat apoplexy, from 64 in 1907 to 246 in 1908, distributed as follows:—New South Wales, 46; Victoria, 130; Queensland, 14; South Australia, 39; Western Australia, 15; Tasmania, 2. In 1911 the deaths fell to 78, while in 1912 they numbered 127, in 1913, 100, and in 1914, 122.

(xxxvi.) Suicide. It may be said that suicides have shewn a tendency to decrease during recent years, the number in 1905 having been 520, viz., 431 males and 89 females; while in 1906 it was 499, viz., 403 males and 96 females; in 1907, 461, viz., 385 males and 76 females; in 1908, 497, viz., 413 males and 84 females; in 1909, 495, viz., 398 males and 97 females; in 1910, 516, viz., 432 males and 84 females; in 1911, 544, viz., 446 males and 98 females, in 1912, 631, viz., 514 males and 117 females; in 1913, 647 viz., 516 males and 131 females, and in 1914, 643, viz., 534 males and 109 females. Of the suicides in 1914, those of 211 males and 58 females occurred in New South Wales; those of 102 males and 24 females in Victoria; those of 111 males and 17 females in Queensland; those of 39 males and 8 females in South Australia; those of 55 males and 2 females in Western Australia; those of 13 males in Tasmania; and those of 3 males in the Northern Territory.

The modes adopted by persons who committed suicide in the years 1907 to 1914 were as follows:—

MALE AND FEMALE SUICIDES, COMMONWEALTH (MODES ADOPTED), 1907 to 1914.

		Male	es.	Fema	les.	Total.		
Mode of Death.		Total of 7 years 1907-13.	1914.	Total of 7 years 1907-13.	1914.	Total of 7 years 1907-13.	1914.	
Poisoning		642	121	353	61	995	182	
Asphyxia		13	2	2	•••	15	2	
Hanging or Stran	gula-	'		i				
tion	•••	505	72	90	15	595	87	
Drowning		236	30	109	17	345	47	
Firearms		1,011	201	50	4.	1,061	205	
Cutting instruments	s	497	76	50	3	547	79	
Precipitation from	n a	· ;				4		
height		28 .	4	7	4	35	8	
Crushing		46	2	7	2	53	4	
Other modes	•••	126	26	19	3	145	29	
Total		3,104	534	687	109	3,791	643	

The death rates from suicides and the percentage on total deaths borne by suicides are shewn in the following table:—

DEATH RATES (a) FROM SUICIDE AND PERCENTAGE ON TOTAL DEATHS, 1914.

COMMONWEALTH.

State.	Death F	tates(a) from $tates(a)$	Suicide.	Percen	Percentage on Total Deaths:			
Soace.	Males.	Females.	Total.	Males.	Females.	Total		
New South Wales	0.22	0.07	0.15	1.92	0.75	1.44		
Victoria	0.14	0.03		1.13	0.32	0.76		
Queensland	0.30	0.05	0.19	2.69	0.65	1.90		
South Australia	0.18	0.04	0.11	1.49	0.38	1.00		
Western Australia	0.30	0.01	0.18	2.83	0.18	1.87		
Tasmania	0.13		0.07	1.22		0.68		
Northern Territory	0.98	• • • •	0.80	4.35		3.70		
Federal Territory	•••		•••	• •••	i			
Commonwealth	0.21	0.05	0.13	1.79	0.50	1.24		

⁽a) Number of deaths from suicide per 1000 of mean population

From the following table, which shews the ages of the persons who committed suicide in 1914, it will be seen that both extreme youth and extreme old age are represented:—

AGES OF PERSONS WHO COMMITTED SUICIDE, COMMONWEALTH, 1914.

	A	ges.		М.	F.	Total.	Ages.	М.	F.	Total.
10	years a	nd under	15	1		1	60 years and under 6	5 35	3	38
15	,,	,,	20	9	9	18	65 ,, ,, 7	0 22	3	25
20	,,	,,	25	38	10	48		5 15	1	16
25	,,	"	30	52	17	69		0 7	١	7
30	,,	"	35	65	19	84		$5 \mid 2$	i	: 2
35	"	,,	40	60	10	70		0 1	1	1
40		"	45	61	11	72	Ago not stated	. 3	'	3
45	"	,,	50	58	10	68	1	i		i
50	"	,,	55	61	10	71	i I	,		
55	"	"	60	44	6	50	Total Deaths	534	109	643

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The following table shews the occupations of the 534 males who committed suicide:-

OCCUPATIONS OF MALE PERSONS WHO COMMITTED SUICIDE, 1914.

COMMONWEALTH.

Occupation.	Deaths.	Occupation.	Deaths.
Manufacturing class	23 81 	Pastoral class Other primary producers Independent means	28 26 5 10 25
Indefinite industrial workers .	26 132 65	Total Deaths	534

The assertion has been made that suicide has become more frequent during recent years, but an examination of the figures from the year 1871 onwards hardly bears this out. The absolute figures have certainly increased, but proportionately to the population the figures for 1906-10 were practically the same as those for 1886-90 and 1891-95. The figures for the four years 1911-14, which have been added to the table, shew, however, a regrettable increase, not only absolutely, but also in proportion to the population. No particulars are available for Western Australia prior to 1886, and from 1886 to 1895 the sexes are not distinguished. All figures for the first five periods are, therefore, exclusive of Western Australia:—

SUICIDES, COMMONWEALTH, 1871-75 TO 1911-14.

Period.	Nun	aber of Suic	ides.	Suicid	es per One	Suicides of Females to 100 Suicides of Males. Based on		
	Males.	Females.	Total.	Males.	Females.	Total.	Absolute Figures.	Rates.
1871-75	715	150	865	150.94	37.56	99.07	20.98	24.88
1876-80	878	145	1,023	159.69	31.06	100.62	16.51	19.45
1881-85	999	183	1,182	152.58	32.90	97.61	18.32	21.56
1886-90	1,394	292	a1,686	179.20	43.97	c116.92	20.95	24.54
1891-95	1,574	337	b1,911	181.34	44.09	d117.07	21.41	24.31
1896-1900	1,838	410	2,248	191.11	47.88	123.65	22.31	25.05
1901-05	2,054	380	2,434	201.78	40.88	124.98	18.50	20.26
1906-10	2,031	437	2,468	186,11	43.22	117.39	21.51	23.22
1911-14	2,010	455	2,465	204.81	50.31	130.71	22.64	24.56

a. 1705 inclusive of Western Australian figures.
 b. 1984 inclusive of Western Australian figures.
 c. 116.49 inclusive of Western Australian figures.
 d. 119.11 inclusive of Western Australian figures.

In the fifth issue of this Year Book (pp. 240, etc.), the result of a series of investigations into the periodicity of suicide was published. The paper was partly reprinted in the sixth issue (pp. 241, etc.), but is not repeated in the present issue.

(xxxvii.) Other Diseases. The number of causes included under this heading is a very large one, amounting to no less than 79 of the items shewn in the detailed classification, and deaths were recorded under every one of these with the exception of the following four:—Glanders, rabies, pellagra, and intestinal parasites. The total number of deaths under "other diseases" in 1907 was 6677, viz., 3393 males and 2744 females;

in 1908, 7417, viz., 4351 males and 3066 females; in 1909, 7419, viz., 4344 males and 3075 females; in 1910, 7794, viz., 4590 males and 3204 females; in 1911, 7652, viz., 4508 males, 3144 females; in 1912, 8300, viz., 4777 males and 3523 females; in 1913, 8241, viz., 4794 males and 3447 females; and in 1914, 8670, viz., 5081 males and 3589 females. In accordance with the revised edition of the classification, the following changes were made in this heading during 1910: beri-beri is now included under this heading instead of under xii., "Other Epidemic Diseases." Other diseases of the respiratory system (1866 deaths) are now shewn under a new head (xxiii.), and appendicitis and typhlitis (374 deaths) under head xxvi. Some of the diseases included here account for very considerable numbers of deaths. Thus there were 815 deaths ascribed to diarrhoea and enteritis of children over two years of age and of adults; 599 to diseases of the arteries, atheroma, and aneurysm; 570 to "other diseases peculiar to early infancy"; 467 to diabetes; 429 to convulsions of children under five years of age; 362 to paralysis without indicated cause; 331 to embolism and thrombosis; 303 to "other diseases of the spinal cord"; 293 to anemia and chlorosis; 292 to acute endocarditis; 253 to "other diseases of the nervous system"; and 240 to simple peritonitis. Particulars of the deaths included in 1914 are shewn in the following table:-

CAUSES OF DEATH INCLUDED UNDER "OTHER DISEASES," COMMONWEALTH, 1914.

				1			
Causes.	м.	F.	T'tal.	Causes.	М.	F.	T'tal.
Purulent Infection and Septi-				Diseases of the Lymphatic			
cæmia Anthrax	75 1	77	152	System Hæmorrhages, Other Diseases	17	9	26
Anthrax Tetanus	65	25	90	of Circulatory System	35	14	49
Mycoses	2	4	6	Diseases of the Mouth and its			
Beri-beri	23		23	Associated Organs	5	10	15
Rickets Syphilis	105	62	167	Diseases of the Pharynx Diseases of the Oesophagus	29 14	33	62 21
Gonococcus Infection	103	2	3	Diarrhœa and Enteritis of	17		. 21
Other Tumours (Tumours of)	- ["	Children over two years of			
the female genital organs	10	01	00	age and Adults	397	418	815
excepted) Acute Articular Rheumatism	18 77	21 91	39 168	Ankylostomiasis Other Diseases of the Intestin's	40	38	1 78
Chronic Rheumatism & Gout	59	50	109	Acute Yellow Atrophy of the	40	30	10
Scurvy	4	3	7	Liver	6	7	13
Diabetes	205	262	467	Hydatid Tumours of the Liver	32	21	53
Exophthalmic Goitre Addison's Disease	10	54 17	60 27	Biliary Calculi Other Diseases of the Liver	34 92	57 100	91 192
Addison's Disease Leucæmia	56	26	92	Diseases of the Spleen	6	4	10
Anæmia, Chlorosis	155	138	293	Simple Peritonitis (non-puer-		-	
Other General Diseases	71	54	125	peral)	115	125	240
Acute and Chronic Alcoholism	143	39 1	182	Other Diseases of the Digestive	16	10	26
Chronic Lead Poisoning Other Chronic Poisonings due	5	1	6	System Chyluria	10	10 1	20
to occupations	4 i		4	Other Diseases of the Kidneys	• • • • •	•	_
Other Chronic Poisonings	6 ¦	3	9	and their Adnexa	101	58	159
Encephalitis	50	24	74	Calculi of Urinary Passages	28	11	39
Progressive Locomotor Ataxia Other Diseases of the Spinal	60	6	66	Diseases of the Bladder Other Diseases of the Urethra,	146	22	168
Cord	181	122	303	Urinary Abscess, etc	30		30
Paralysis without indicated				Diseases of the Prostate	174		174
cause	216	146	362	Non-venereal Diseases of the	_		_
General Paralysis of the Insane Other Forms of Mental Alien-	111	23	134	Male Genital Organs Non-puerperal Diseases of	3	•••	3
ation	44	34	78	the Breast		1	1
Epilepsy	123	68	191	Gangrene	75	60	135
Convulsions (non-puerperal)	11	20	31	Furuncle	16	. 4	20
Convulsions of Children under five years of age	233	196	429	Acute Abscess Other Diseases of the Skin and	64	22	86
Chorea	1	3	4	Adnexa	24	18	42
Neuralgia and Neuritis	16	15	31	Non-tuberculous Diseases of		10	
Other Diseases of the Nervous		100	0-0	the Bones	31	27	58
System Diseases of the Eye	145 1	108	253	Other Diseases of the Joints (Tuberculosis & Rheuma-]
Diseases of the Eye Diseases of the Ear	23	8	31	tism excepted)	6	1	7
Pericarditis	62	20	82	Amputations	2	î	3
Acute Endocarditis	158	134	292	Other Diseases of the Organs			
Angina Pectoris	84	32	116	of Locomotion	4	•••	4
Diseases of the Arteries, Atheroma, Aneurysm	421	178	599	Other Diseases peculiar to In-	335	235	570
Embolism and Thrombosis	146	185	331	Want of Care (Infants)	13	233	15
Diseases of the Veins (Varices,		l		†		l 	
Varicose Ulcers Hæmor- rhoids)	11	17	28	Total Deaths	5,081	3,589	8,670
rhoids)	11	11	20		<u>'</u>	<u>'</u>	

(xxxviii.) Unspecified or Ill-defined Diseases. The number of cases which has to be included here is a considerable one from year to year, comprising 1275 in 1907, 1262 in 1908, 1087 in 1909, 598 in 1910, 460 in 1911, 590 in 1912, 614 in 1913, and 644, viz., 418 males and 226 females in 1914. The detailed classification distinguishes these ill-defined diseases under three headings:—Ill-defined organic diseases, including such definitions as dropsy, anasarca, ascites, general ædema, etc.; sudden death, including syncope; and unspecified or ill-defined causes, of which the following are specimens:—Asthenia, coma, dentition, exhaustion, heart failure, etc. In 1914 the number of cases of death which would have to be classed under the first of these categories was 24; those belonging to the second, 26; and those belonging to the third, 594. It is, of course, true that there must always occur some cases where the disease is not well characterised, or where sufficient information is not procurable to allow of a clear definition being given in the certificate of death, but in the majority of cases included under this heading a more complete diagnosis and consequently a more satisfactory certificate would no doubt have been possible.

In the fifth issue of this Year Book, pp. 234, etc., some observations were published, dealing with the incidence of scarlet fever, measles, whooping cough, diphtheria and croup, typhoid, diarrhœa, enteritis, and dysentery.

19. Causes of Death in Classes.—The figures presented in the preceding paragraphs relate to certain definite causes of death. It is almost generally acknowledged that figures of this kind are of greater value in medical statistics than is a classification under general headings. The classification under fourteen general headings adopted by the compiler of The International Nomenclature is, however, shewn in the following table, together with the death rates and percentages on total deaths pertaining to those classes:

DEATHS, DEATH RATES (a), AND PERCENTAGES ON TOTAL DEATHS IN CLASSES, 1914.—COMMONWEALTH.

Class.	Tot	Total Deaths.			Death Rate. (a)			Percentage on Total Deaths.		
Olass.	М.	F.	Total.	м.:	F.	Total	M.	F.	Total.	
1. General diseases 2. Diseases of the Nervous System &	6,372	5,262	11,634	2.49	2.23	2.36	21.36	24.04	22.48	
of the Organs of Special Sense	2,809	2,195	5,004	1.10	0.93	1.02	9.42	10.03	9.68	
3. Diseases of the Circulatory System	3,683	2,676	6,359	1.44	1.13	1.29	12.34	12.23	12.30	
4. Diseases of the Respiratory System		2,103	5,206	1.21	0.89	1.06	10.40	9.61	10.07	
Diseases of the Digestive Organs	3,656	3,049	6,705	1.43	1.29	1.36	12.25	13.93	12.96	
6. Diseases of the Genito-Urinary		1.000	0.040	0.00		0.50	5.01	4.00	F 40	
System and Adnexa	1,763	1,077	2.840	0.69	0.46	0.58	5.91	4.92 2.90	5.49	
7. Puerperal Condition 8. Diseases of the Skin and of the	•••	634	634		0.27	0.13		2.90	1.23	
Cellular Tissue	179	104	283	0.07	0.04	0.06	0.60	0.48	0.55	
9. Diseases of the Organs of Loco-	148	104	200	0.07	0.04	0.00	0.00	0.40	0.55	
motion	43	29	72	0.02	0.01	0.01	0.11	0.13	0.14	
10 Malformations	306	224	530	0.12	0.09	0.11	1.03	1.02	1.02	
11. Infancy	2,283	1,632	3,915	0.89	0.69	0.79	7.65	7.46	7.57	
12. Old Age	2.228	1.902	4.130	0.88	0.81	0.84	7.47	8.69	7.98	
13. Violence	2.992	772	3,764	1.17	0.33	0.77	10.03	3.53	7.28	
14. Ill-defined Diseases	418	226	644	0.16	0.10	0.13	1.40	1.03	1.25	
	· .									
· ·										
Total	29,835	21,885	51,720	11.67	9.27	10.51	100.00	100.00	100.00	

⁽a) Number of deaths per 1000 of mean population.

20. Deaths of Children under 1 Year.—"Bulletin No. 32; Commonwealth Demography" contains tables shewing the age at death of children dying during the first year of life from nineteen causes. In the Bulletin mentioned, the particulars are published for males and females separately for the States, Territories and Commonwealth, but the totals for the Commonwealth only are here shewn for both sexes combined:—

Total under 1 year

... 339

225

DEATHS OF CHILDREN UNDER 1 YEAR, COMMONWEALTH, 1914.

Age at Death.	Whoming Cough	Pulmonary	Acute Miliary Tuberculosis.	Tubercular Meningitis.	Abdominal Tuberculosis.	Pott's Disease.	Disseminated Tuberculosis.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.
Under 1 week 1 week and under 2 2 weeks ,, 3 3 ,, ,, 1 mon 1 month ,, 2 2 months ,, 3 3 ,, ,, 4 4 ,, ,, 5 5 ,, 6 6 ,, ,, 7 7 ,, ,, 8 8 ,, ,, 9 9 ,, ,, 10 10 ,, ,, 11 11 ,, ,, 12	4 4 2 2 1 1 1 1 1		2 1 2 1 1	 1 4 4 2 1 1 6 2 5	 1 2 3 1 1 1 1 1 1 2 2	1	 1 	5 5 4 6 6 24 11 16 5 6 3 3 3 3	19 8 3 2 9 19 22 15 27 27 22 25 17 27	125 51 10 12 13 14 11 13 11 11 9 10 14 10 7	8 16 19 16 42 32 17 12 6 13 9 6 8 7 3
Total under 1 year	21	7 13	6	29	15	1	2	94	261	321	214
Age at Death.	Broncho- Pneumonia.	Pneumonia.	Diarrhœa and Enteritis.	Hernia and Intestinal Obstruction.	Malformations.	Congenital	and Scleroma.	Other Diseases peculiar to Early Infancy.	Lack of Care.	Other Causes.	Total.
Under 1 week 1 week & under 2 2 weeks ,, 3 3 ,, ,,1 month 1 month ,, 2 2 months ,, 3 3 ,, ,, 4 4 ,, ,, 5 5 ,, ,, 6 6 ,, ,, 7 7 ,, ,, 8 8 ,, ,, 9 9 ,, ,, 10 10 ,, ,, 11 11 ,, ,, 12	6 17 13 18 · 56 43 28 16 26 18 18 18 29 19	16 7 5 11 12 12 12 15 15 18 11 10 1 16 15 15	11 41 52 56 194 316 336 334 313 280 238 202 196 180 144	9 6 5 2 1 3 9 12 10 7 8 7 3 4	235 63 23 17 29 33 18 10 14 7 8 4 4 5 3		079 198 63 42 222 20 75 50 41 42 26 16 21 13	468 54 17 8 14 8 1 	10 2 2 1 	139 51 57 36 74 47 45 51 30 43 30 44 41 .38 32	3,130 620 372 393 762 690 612 574 510 487 405 377 372 324 293

It will be seen that the maximum number of deaths from convulsions, pneumonia, acute bronchitis, malformations, congenital debility, icterus and sclerema, other diseases peculiar to early infancy, and lack of care, occurred during the first month of life, while broncho-pneumonia was most fatal during the second

2,893

86 476

3,326 | 570

758

15

9,861

month. Diarrhea and enteritis carried off more children in the third and fourth months than in any other, the numbers gradually decreasing toward the end of the year. Whooping cough reached its maximum during the second month of life.

21. Ages at Death of Married Males and Females, and Issue.—"Bulletin No. 32; Commonwealth Demography" contains a number of tables, for the Commonwealth, shewing the age at marriage, age at death, duration of life after marriage, birthplaces, and occupations, in combination with the issue, of married persons who died in 1914. A short summary of the tables mentioned is given hereunder. Deaths of married males in 1914 numbered 13,037, and of married females, 12,237. The ages at death of the males ranged from 18 to 102 years, and those of the females, from 17 to 106 years. The total number of children in the families of the 13,037 males was 68,567, the maximum in one family being 21; and of the 12,237 females, 64,745, with a maximum of 22. The average number of children is shewn for various age-groups in the following table:—

AGES AT DEATH OF MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.

COMMONWEALTH,	1914.
COMMON WEALTH.	TOTE.

Age at Death.	Average Family of Males.	Average Family of Females.	Age at Death.	Average Family of Males.	Average Family of Females.
Under 20 years 20 to 24 years 25, 29, 30, 34, 35, 39, 40, 44, 45, 49, 50, 54, 55, 59, 60, 64, 65, 69, 9,	1.22 1.49 2.10 2.70 3.25 3.89 4.41 5.06 5.68 6.23	0.55 1.26 1.80 2.56 3.34 4.21 4.23 4.82 5.66 5.81 6.18	70 to 74 years 75 ,, 79 ,, 80 ,, 84 ,, 85 ,, 89 ,, 90 ,, 94 ,, 95 ,, 99 ,, 100 years and upwards Age not stated All ages	6.56 6.65 6.72 6.59 6.15 6.41 5.50 5.43	6.67 6.65 6.67 6.23 6.24 6.02 5.83 5.00

The figures shewn in the preceding table include the issue both living and dead; and the proportion between them, taking the issue of deceased males and females together, was about as 1000 to 306, or, roughly speaking, as ten to three. The totals are shewn in the following table:—

ISSUE OF MARRIED MALES AND FEMALES,

COMMONWEALTH, 1914.

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Male	es. Females.	Total.
Living Dead	7 004	26,330 6,841	53,732 14,835	Dood	24,3 8,7	1	48,347 16,398
Total	35,396	33,171	68,567	Total .	33,1	33 31,612	64,745

These figures shew a masculinity in the births of 105.78, which agrees fairly well with the experience of the birth statistics, the masculinity of the births in the Commonwealth from 1904 to 1914 having averaged 105.17.

22. Ages at Marriage of Males and Females, and Issue.—While the table giving the average families of married males and females naturally shews an increase in the averages with advancing ages at death, the following table, which gives the average families of males and females according to the age at marriage of the deceased parents, shews a corresponding decrease in the averages as the age at marriage advances:—

AGES AT MARRIAGE OF MALES AND FEMALES, AND AVERAGE ISSUE.

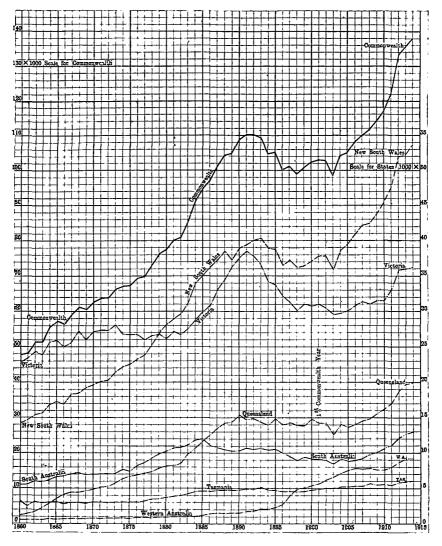
COMMONWEALTH, 1914.

Age at Marriage.	_	Average Family of Males.	Average Family of Females.	Age at Marriage.	Average Family of Males.	Average Family of Females.
Under 20 years		6.87	7.14	55 to 59 years	0.71	
20 to 24 years		6.35	5.69	60 , 64 ,	0.54	
25 ,, 29 ,,	!	5.51	4.23	65 years and upwards		
30 ,, 34 ,,		4.71	2.85	Age not stated	4.59	4.90
35 ,, 39 ,,		3.98	1.53	Ü		
40 ,, 44 ,,		2.80	0.55			
45 40	إ	2.26	0.04			
50 54	••••	2.30	}	All ages	5.26	5.29
					f	

It will be seen that of women who were married at ages from 40 to 44 years, one in every two gave birth to a child, while in the case of women who were married at ages from 45 to 49 years, the proportion fell to about one in every twenty-five.

- 23. Duration of Life after Marriage of Males and Females.—The duration of life after marriage has been tabulated for males and females both in combination with the age at marriage, and with the total and average issue. The tables shewing the result do not, however, lend themselves to condensation, and are, therefore, omitted here. They will be found in "Bulletin No. 32 of Commonwealth Demography," pages 198 to 203.
- 24. Birthplaces of Married Males and Females, and Issue.—The following table shews the birthplaces of married males and females whose deaths were registered in 1914, together with their average issue. No generalisations can, of course, be made in those cases where the number of deaths is small, and where the average family had to be worked out on small figures. But where the figures are comparatively large, as in the case of natives of the Commonwealth, differences occur between the averages of the individual States which appear inexplicable on any other ground than that of inefficient registration in some of the States. It will be noted that the differences occur both in the male and female averages. Although the figures apply to the Commonwealth as a whole, it must be borne in mind that the vast majority of deaths of natives of any one State are registered in that particular State. The average family of all deceased males who were natives of the Commonwealth was 4.70, and that of deceased females who were natives of the Commonwealth, 4.55.

GRAPHS SHEWING TOTAL ANNUAL BIRTHS IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1914.



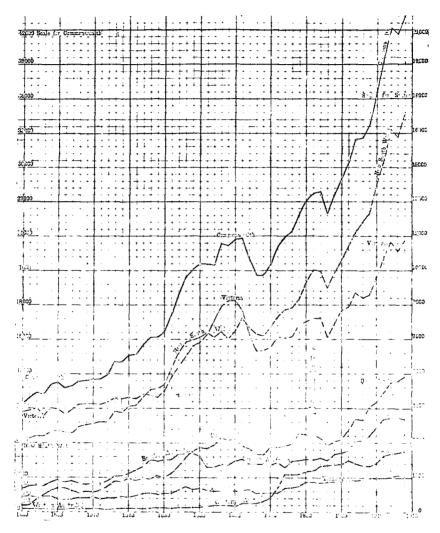
(See Table page 151.)

EXPLANATION OF GRAPHS.—The base of each small square represents an interval of one year for both Commonwealth and States, and the vertical height represents 2000 persons for the Commonwealth, and 1000 for the States.

The scale on the left relates to the Commonwealth, and that on the right to the States.

The distances upwards from the common zero lines of the States and Commonwealth, marked 0. denote the total annual number of births in the States and Commonwealth, the scale of the latter being reduced one-half.

GRAPHS SHEWING TOTAL ANNUAL MARRIAGES IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1914



(See Table page 16).

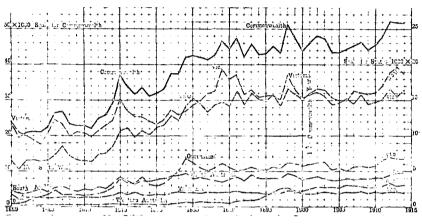
EXPLANATION OF GRAPHS. -The base of each small counse represents an interval of one year for both Commonwealth and States, and the vertical height represents 600 marriages for the Commonwealth and 300 for the States.

The scale on the left relates to the Commonwealth, and that on the right relates to the States.

The distances upwards from the zero line, marked 0, denote the total number of marriages in the States and Commonwealth, the scale of the latter being reduced one half.

The names of the States to which the graphs refer are written thereon, and the lines used are similar to those for births on page 211.

GRAPHS SHEWING TOTAL ANNUAL DEATHS IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1914.



(See Table page 17).

EXPLAMATION OF GRAPHS: The base of each small square represents an interval of one year for both Commonwealth and States, and the vertical height represents 2000 persons for the Commonwealth and 1000 for the States.

The scale on the left relates to the Commonwealth, and that on the right relates to the States

The distances unwords from the common zero line for States and Commonwealth, marked 0, denote the fotel annual number of death- in the States and Commonwealth, the scale of the latter being reduced one-half.

The names of the States to which the curves refer are written thereon, and the lines used are similar to those for births on page 211.

GRAPHS SHEWING GENERAL BIRTH, NATURAL INCREASE, DEAFH MALE, GENERAL AND FEMALE AND MARRIAGH RATES IN THE COMMONWEAULY OF ACSTRALIA, IS SEEN.

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(See pages, 151, 108, 174 and 224,

EXPLANATION 6. Graph is a The base of each small source rooms one year's line at hand, the vertical beidge, accombing to the character of the curve, one could be a constant of the confirmation of the basic line being two partitions and of the promission.

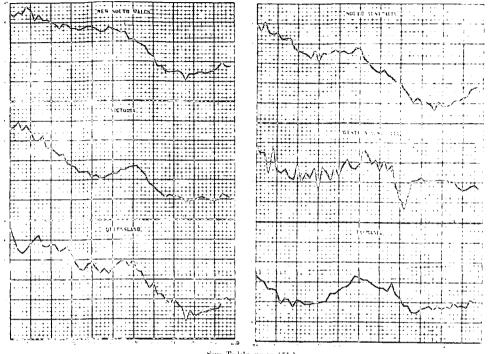
BIRTH RATE GRAPHS. See next perco-

EXPLANATION OF GRAPHS. The case of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each state being twenty per thousand of the population.

DEATH RATE GRAPHS. See next page.

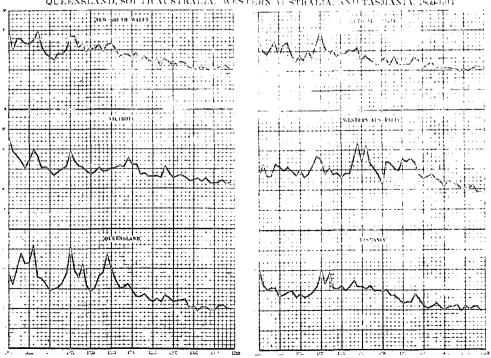
Explanation of Graphs.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each state is shown by a thickened line.

GRAPHS SHEWING BIRTH RATES IN THE STATUS OF NEW SOUTH WALES, VIC FOR A QUEENSLAND, SOUTH AUSTRALIA, WESTERN AUSTRALIA, AND TASMANIA, 18:04-1914.



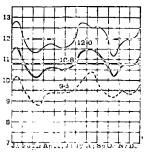
See Table page 151.)

GRAPHS SHEWING DEATH RATES IN THE STATES OF NEW SOUTH WALES TO TOKIA. QUEENSLAND, SOUTH AUSTRALIA. WESTERN AT STRALIA, AND TASMANIA, 1860-004

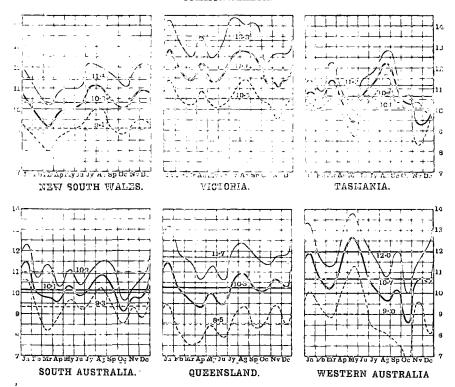


(See Table page 174.) For explanation of above graphs see page 214.

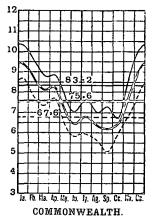
GRAPHS SHEWING GENERAL MONTHLY DEATH RATES, 1907-1912

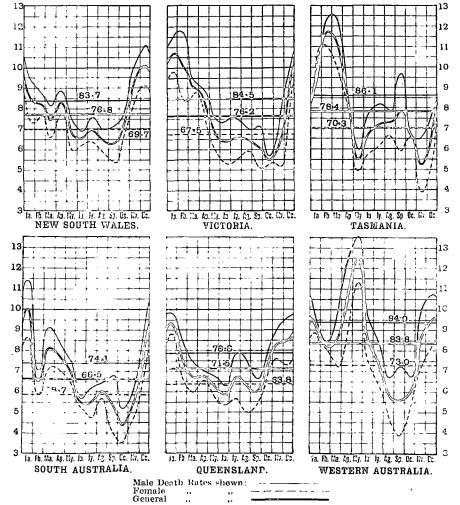


COMMONWEALTH.



Male DeathrRates shewn:





BIRTHPLACES AT MARRIAGE OF MALES AND FEMALES, AND AVERAGE ISSUE.

COMMONWEALTH, 1914.

		rried Lles		ried ales.		Mar Ma		Marı Fem	
Birthplace.	Deaths.	Average Family.	Deaths.	Average Family.	Birthplace.	Deaths.	Average Family.	Deaths.	Average Family.
Victoria Queensland Queensland Queensland South Australia Western Australia Tasmania New Zealand England Wales Scotland Ireland Isle of Man Other European Brit Possessions Austria-Hungary Belgium Denmark France Germany Greece Italy Netherlands Norway Portugal	1,9039.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	5.31 3.96 3.72 4.78 5.92 4.78 5.5.44 3.72 5.65 5.15 5.37 6.08 1.00 4.49 4.00 4.44 4.5.56 5.94 4.3.38 8.5.94 4.3.38 5.94 4.3.38 5.94 4.3.38 5.94 4.3.38 5.94 4.00 4.44 5.5.44 6.5.94 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5	2,147 1,694 331 633 69 422 67 3,140 940 2,201 3 13 1 20 7 255 2 8 2 4	4.97 4.05 3.51 4.45 5.20 3.33 5.92 5.40 5.98 5.86 3.67 6.25 4.00 4.50 3.00	China Japan Jaya Philippine Islands Syria South Africa (so descd.) Other African British Possessions Other African C'ntries Canada Jamaica Newfoundland Other American British Possessions Brazil Chile Peru United States Other A merican Countries Fiji Friendly Islands Papua Friendly Islands	61 4 1 1 3 1 14 1 31 4 2 2 1 52 23 21 	2.41 1.00 9.00 8.33 3.00 5.00 3.00 4.71 5.50 6.00 4.40 5.22 0.50 2.00	2 1 1 2 2 7 7 1 10 1 2 2 1 1 1 2 2 6 10 1	4.00 5.00 8.00 5.14 8.00 11.00 4.00 9.50 11.00 3.92 4.10 1.00
Russia Spain Sweden Switzerland Other Europ.Countri British India	31 60 30 es 5	2.00 5.23 5.73 3.80	16 2 10 6 2 23	6.25 1.50 3.10 3.33 1.50 4.83	New Caledonia New Hebrides Samoa S. Sea Islands (so descd.) At Sea Not stated	 1 3 40 64	2.00 2.00 3.00 6.50 4.06	1 1 35 51	6.11 4.45
Ceylon Hong Kong	::: ::i		2	5.00	Total	13,037	5.26	12,237	5.29

25. Occupations of Married Males, and Issue.—A final tabulation shews the average issue in combination with the occupation of deceased males. When these figures are available for a number of years they will afford some clue to the much debated question as to the decrease in the birth rate among various classes of the population.

OCCUPATIONS OF MARRIED MALES, AND AVERAGE ISSUE.

	U.	MMON WEA	штп, 1914.			
	Deaths of Married Males.	Average Family.				
Professional class		•••	•••		795	4.44
Domestic class	•••	·	•••		480	3.93
Mercantile class		•••	•••		1,645	4.42
Engaged in transport and	commu	nication	•••		1,082	4.76
Manufacturing class			,		1,407	5.04
Engaged in building and	construc	tion	•••		898	5.13
Indefinite industrial work	ers		•••		2,107	5.13
Agricultural class			•••		2,052	6.79
Pastoral class			•••		575	6.17
Working in mines and qua	arries				942	5.24
Other primary producers	•••		•••		99 ·	5.01
Independent means			•••		547	5.95
Dependents					50	3.56
Occupation not stated	•••	•••	***		358	5.31
Total			•••		13,037	5.26

In the fifth issue of this Year Book (pp. 227 to 229), a series of observations was published dealing with the Commonwealth Rates of Infantile Mortality. These observations are not reprinted in the present issue.

§ 4. Graphical Representation of Vital Statistics.

1. General.—The progressive fluctuations of the numbers representing the total births and marriages are important indexes of the economic conditions and social ideals of a community. For this reason graphs have been prepared (see pages 211 and 212), shewing these fluctuations from 1860 to 1914, both for the States and the Commonwealth. The facts are very significant from the national point of view and call for serious consideration. To properly appreciate the situation it should be remembered that, normally, the increase of births and also of marriages will be similar to the increase of population. Although the marriage curve shews a falling off in marriages after 1891 (see page 212), it shews a recovery in 1894, and, with the exception of a small fall for 1903, it has continually advanced. The same characteristic is not seen in the curve of births, which discloses a recovering tendency only in 1904.

The table printed below shews the number of births, marriages and deaths which would have been experienced had the rate for 1890 continued, and reveals the significance of the facts disclosed by the curves. It may be remarked that the death rate has greatly improved, and among other countries Australia stands in a very favourable position in this respect. At the same time the decline in the marriage rate, overtaken once more in 1907, and the still more serious decline in the birth rate, in a country but sparsely populated, have an obvious and most important bearing on the national future, and on the extent to which it is desirable to promote immigration.

ACTUAL BIRTHS, DEATHS, AND MARRIAGES.

EXPERIENCED IN THE COMMONWEALTH DURING THE YEARS 1890 TO 1914, COMPARED WITH THE NUMBER THAT WOULD HAVE OCCURRED IF THE RATES OF 1890 HAD REMAINED IN OPERATION.

	BIRTHS.		DE.	ATHS.	Marriages.	
Year.	Actual.	Number of Births that would have been experi- enced if the 1890 birth rate had been in operation.	Actual.	Number of Deaths that would have been experi- enced if the 1890 death rate had been in operation.	Actual.	Number of Marriages that would have been experienced if the 1890 marriage rate had been in operation.
1890	108,683		44,449		23,725	
1891	110,187	111,802	47,430	45.737	23,862	24,419
1892	110,158	114,502	42,268	46,842	22,049	25,009
1893	109,322	116,617	45,801	47,707	20,631	25,470
1894	104,660	118,734	42,958	48,573	20,625	25,933
1895	105,084	121,002	43,080	49,501	21,564	26,428
1896	100,134	123,212	45,202	50,405	23,068	26,911
1897	101,137	125,419	43,447	51,308	23,939	27,393
1898	98.845	127,371	51,406	52,106	24,472	27,819
1899	100,638	129,088	47,629	52,809	25,958	28,194
1900	102,221	130,848	44,060	53,529	27,101	28,579
1901	102,945	132.599	46,330	54,245	27,753	28.961
1902	102,776	134,603	48,078	55,065	27,926	29,399
1903	98,443	136,189	47,293	55,714	25,977	29,745
1904	104,113	137,917	43,572	56,420	27,682	30,122
1905	104,941	139,959	43,514	57,256	29,004	30,569
1906	107,890	142,030	44,333	58,103	30,410	31,021
1907	110,347	144,248	45,305	59,011	32,470	31,505
1908	111,545	146,720	46,426	60,022	32,551	32,045
1909	114,071	149,526	44,172	61,170	33,775	32,658
1910	116,801	152,869	45,590	62,537	36,592	33,388
1911	122,193	157,072	47,869	64,257	39,482	34,306
1912	133,088	162,477	52,177	66,468	42,147	35,487
1913	135,714	168,032	51,789	68,740	41,594	36,700
1914	137,983	172,073	51,720	70.394	43,311	37,583

2. Graphs of Annual Births, Commonwealth and States (page 211).—A striking feature of the graphs of births is the practically continuous increase in the number of births exhibited in the graph for the Commonwealth from 1860 to 1891, and the marked variations of subsequent years. As the curve clearly shews, a turning point in the number of births occurred in 1891, whilst, as regards the separate States, New South Wales and Tasmania date their decline in number from 1893, Victoria from 1891, and Queensland from 1890. In South Australia the corresponding decline took place as early as 1885, while in Western Australia the increase in number of births has been practically continuous throughout.

It is of special interest to note the decline in births associated with the commercial crisis of 1891-3, and also the decline occurring in 1903, an accompaniment of the severe drought of that period.

In the case of New South Wales the graph crosses that of Victoria in 1879, i.e., the births for that year were sensibly identical in the two States. A fairly continuous increase was experienced in the former State from 1860 to 1893, the only marked fluctuation being a sudden decline in 1889 and an equally rapid recovery in 1890. From 1893 to 1898 a somewhat rapid decline again took place, succeeded by a rise, the continuity of which was broken only by a sharp decline in 1903 and recovery in 1904.

In the case of Victoria the graph shews the increase between 1860 and 1880 to have been comparatively slight, the curve being a gradual rise, with fluctuations more or less marked to 1873, with a subsequent decline. From 1880 to 1891 the increase in the number of births is seen to be very rapid and practically continuous, while from 1891 to 1898 an equally sharp and continuous decline was experienced. A further rise and fall took place between 1898 and 1903, succeeded by a continuous rise from the last-mentioned year to 1907, and a slight fall in 1908, followed by a recovery in 1909.

Starting in 1860 with a lower number of births than any State except Western Australia, the Queensland graph shews that the births increased somewhat rapidly until 1867. The equality in the number of births in Queensland and Tasmania in 1864 is shewn by the Queensland curve crossing the Tasmanian curve at the line for that year. From 1867 to 1882 a continuous though somewhat less rapid increase was experienced, followed by a very rapid rise to 1890, in which year Queensland's maximum number of births prior to 1909 and subsequent years was recorded. The South Australian graph is crossed by that of Queensland at the year 1885. From 1890 onwards the number of births has fluctuated somewhat, but has, on the whole, retained a practically stationary position at a height rather less than that of 1890. The most serious variation was a sudden fall in 1903, the drought year, and rapid recovery in 1904, with a further fall in 1905 and a continuous rise since 1906.

The South Australian graph, a slow but practically continuous rise from 1860 to 1885, exhibits the steady increase in the total number of births. This rise is followed by a slow but fluctuating decline to 1903, and a slight recovery to 1914.

The Tasmanian curve may be regarded as made up of five portions, of which the first, from 1860 to 1877, represents a period of very slight variation, with, on the whole, an increase; the second, from 1877 to 1884, a period of continuous and moderately rapid increase; the third, from 1884 to 1893, a period of rapid increase; the fourth, from 1893 to 1898, a period of continuous but slow decrease; and the fifth, from 1898 onwards, a period of steady recovery.

The Western Australian curve indicates that an increase, which was practically continuous but very slow, took place from 1860 to 1884, and that a somewhat quicker rate of increase, experienced from 1884 to 1896, was succeeded by a still more rapid and very satisfactory rate of increase from 1896 onwards.

It will be seen that the years in which the highest points were reached by the several curves are as follows:—

State ... N.S.W. Vic. Q'land. S. Aust. W. Aust. Tas. C'wealth. Year ... 1914 1891 1914 1914 1913 1914 1914

- 3. Graphs of Annual Marriages, Commonwealth and States (page 212).—The Commonwealth marriage graph from 1860 to 1885 reveals a moderate but somewhat fluctuating increase in the annual number of marriages between 1860 and 1871, a more rapid increase between 1871 and 1879, a still more rapid increase between 1879 and 1885. From 1885 to 1891 the numbers continued to increase, but with marked fluctuations in rate. The financial crisis associated with the period subsequent to the latter year was accompanied by a strongly-marked decline in the number of marriages, which reached its lowest point in 1894. From that year onwards a fairly rapid recovery was effected, the record for 1891 being exceeded by that of 1897. This progress was maintained until 1902, when the severe drought of that and the succeeding year were collateral with a rapid fall in the number of marriages. An equally rapid recovery, however, has since taken place, and the number of marriages in the Commonwealth during 1914 was greater than in any preceding year.
- 4. Graphs of Annual Deaths, Commonwealth and States (page 213).—The curves shewing the progression of the annual number of deaths indicate clearly that the periods for which exceptionally large numbers of deaths occurred were:—(a) 1866-7, (b) 1875-6, (c) 1884-5, (d) 1889-1891, (e) 1893, (f) 1898, and (g) 1902-3. It is remarkable that in each of the periods specified the phenomenon of a relatively high number of deaths was experienced in the majority of the States. Thus, as regards 1866-7, all the States except Western Australia and Tasmania were so affected; in 1875-6 all except Western Australia; in 1884-5 all were affected; in 1889 all except Western Australia and South Australia; in 1891 all except Queensland; whilst in 1893 and 1898, and 1902-3 all were affected. The fact that the periods of high death rates have been practically identical in the several States furnishes an indication that the excessive mortality has been due to a considerable extent to some common cause operating throughout the Commonwealth.

It may be noted as curious that periods of heavy mortality have occurred at intervals of approximately nine years, viz.:—1866-7, 1875-6, 1884-5, 1893, and 1902-3. There are, however, two marked increases between the third and fourth dates, and one between the fourth and fifth. Thus there is no real indication of the periodicity of the death rate.

Periods in which the number of deaths was exceptionally low are far less clearly defined than those in which the number was high, and the agreement amongst the States is also less complete. The principal periods of low mortality may be said to be 1861, 1869-71, 1879, 1892, 1897, 1900, 1904-5, 1909, 1914.

- 5. Graphs of Annual Birth, Death, and Marriage Rates and of Rate of Natural Increase—Commonwealth (page 214).—(i.) General. These graphs represent the number of births, deaths, and marriages, and the excess of births over deaths (natural increase) per 1000 of the population of the Commonwealth, for each of the years 1860 to 1914.
- (ii.) Births. In the case of births, the graph indicates a well marked decline in rate during the period, and represents a fall from 42.56 per 1000 of population in 1860 to 28.05 per 1000 in 1914. This enormous reduction has been subject to small fluctuations during the period under review, but may, on the whole, be said to have been in evidence throughout. There are, however, two periods of arrested decline noticeable, one from 1877 to 1890, and the other from 1898 to the present time. The course of the graph thus indicates a rapid fall from 42.56 in 1860 to 34.99 in 1877, succeeded by a fluctuating but, on the whole, fairly stationary period to 34.98 in 1890, then a fall even more rapid to 27.15 in 1898, and a further comparatively stationary period to 28.05 in 1914. The lowest point reached, viz., 25.29, was attained in 1903, the year in which the Commonwealth suffered severely from the worst drought it has ever experienced.

Since then a small but well defined advance in the birth rate has been in evidence. A declining birth rate is usually due to complex causes, amongst which the variations in the age constitution of the population, and the adoption of preventative measures, are generally considered the most potent.

- (iii.) Deaths. The three graphs relating to deaths furnish particulars concerning the rates experienced during the period amongst males and females separately, and in the population as a whole, the latter occupying naturally a position between the other two. Throughout the period the rate for males has largely exceeded that for females, but the fluctuations in the two rates have synchronised remarkably, indicating that the conditions which have been responsible for the marked variations which have occurred from time to time have affected males and females alike. On the whole, the graphs furnish clear evidence of a satisfactory decline in the death rate of the Commonwealth, a fall having taken place from 20.86 in 1860 to 10.51 in 1914. The graphical representation of the death rates brings into prominence five years in which the rates were exceptionally high when compared with those of adjacent years. These years are 1860, 1866, 1875, 1884, and 1898. The principal cause of the excessive rate of 1860 was the prevalence in that year of measles, scarlatina, and diphtheria, while the high rates of 1866, 1875, and 1898 were also largely due to epidemics of measles. Prior to 1892, when a rate of 12.91 was experienced, the lowest general death rate for the Commonwealth was that of 1871, viz., 13.24. The highest male death rate for the period was 20.97 in 1860, and the lowest 11.51 in 1909. For females the highest was 20.71 in 1860, and the lowest 9.06 in 1909. The difference between the male and female rate has, since 1869, been fairly constant, and has ranged between 1.97 and 3.44, with a mean value of about 2.7.
- (iv.) Marriages. In the case of the graph representing marriage rates, the fluctuations are less abrupt than in the case of the birth rate and death rate graphs, and the rate for 1914, the final year of the period, viz., 8.80, does not differ very considerably from that of 1860, which was 8.42. The lowest marriage rate for the period was that of 1894, viz., 6.08, marking the culmination of the commercial and financial depression indicated by the declining rates from 1888 onwards. From 1894 to the present time a satisfactory increase has been in evidence, disturbed only by the sharp decline which, in 1903, accompanied the severe drought experienced in the Commonwealth in that year.
- (v.) Natural Increase. This graph, which represents the excess of births over deaths per 1000 of population, exhibits marked fluctuations arising from the combined fluctuations in birth and death rates. Thus, corresponding to the high death rates of 1860, 1866, 1875, and 1898, there are exceptionally low rates of natural increase, accentuated in the last-mentioned year by a comparatively low birth rate. A combination of low birth rate and comparatively high death rate was also responsible for a very low rate of natural increase in 1903. The highest rate of natural increase for the period was 26.58 in 1864, and the lowest 13.03 in 1898.
 - 6. Graphs of Annual Birth Rates—States (page 215).—These graphs furnish for the several States information similar to that supplied in the graph on page 214 for the Commonwealth as a whole. It will be seen that in every case the total effect has been an extensive decline in rate, subject to very marked fluctuations. In all the States the period from 1875 to 1885 was one of arrested decline, if not of actual advance, in the birth rate. With the exception of the very low rate accompanying the drought in 1903, the variations in any of the States since 1901 have not been very marked, and in some cases a slight tendency to increase is in evidence.

The highest birth rates during the period were as follows:—New South Wales (1864), 44.00; Victoria (1862), 44.71; Queensland (1860), 47.93; South Australia (1862),

- 45.44; Western Australia (1860), 38.96; and Tasmania (1884), 36.63. The following were the lowest rates for the period:—New South Wales (1903), 25.44; Victoria (1910), 24.51; Queensland (1903), 24.53; South Australia (1903), 23.84; Western Australia (1896), 23.44; Tasmania (1899), 27.43.
- 7. Graphs of Annual Death Rates—States (page 215).—These graphs furnish for the several States similar information to that given for the Commonwealth as a whole in the diagram on page 214, and indicate in each case a satisfactory decline in death rate. It may be noted that an exceptionally high death rate was experienced in all the States in 1875, and that a similar uniformity, though on a smaller scale, is observable for the year 1898, the principal cause in each case having been an epidemic of measles. The highest death rates experienced during the period were as follows:—New South Wales (1867), 19.79; Victoria (1860), 22.77; Queensland (1866), 25.96; South Australia (1875) 19.97; Western Australia (1884), 21.54; and Tasmania (1875), 19.99. The following were the lowest death rates for the period:—New South Wales (1909 and 1910), 9.89; Victoria (1913), 11.11; Queensland (1906), 9.50; South Australia (1909), 9.74; Western Australia (1913), 9.34; and Tasmania (1914), 9.67.
- 8. Graphs shewing Variations in Annual Death Rates from Month to Month.—The graphs on pages 216 and 217 shew for the Commonwealth as a whole and for each of the six States the annual death rates for males, females, and persons calculated for equalised months, and the infantile death rate, calculated in the same way, and also distinguishing males, females, and persons. Further particulars in regard to these graphs will be found on pages 186 and 187.